IMPROVING RESULTS OF PROJECT PORTFOLIO MANAGEMENT IN THE PUBLIC SECTOR USING A BALANCED STRATEGIC SCORING MODEL

By

James L. Norrie

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Royal Melbourne Institute of Technology,
School of Property, Construction and Project Management, Design and Social Context
RMIT University

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Declaration by the Candidate

I declare that the work presented in this thesis is, to the best of my knowledge, original except where acknowledged otherwise in the text. No part of this document has been previously submitted for a degree of any kind at this or any other academic institution. The work presented has been carried out during the course of my academic program (as noted herein) but forms part of my on-going professional and research activities in keeping with the aims and objectives of the DPM degree.

James L. Norrie

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Abstract

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A thesis presented on a suggested improvement to professional practice in project management specifically in the public sector. Methods known collectively as Project Portfolio Management (PPM) are becoming established in both practice and the literature as a tool for prioritizing and managing multiple projects at the enterprise level, especially in large private sector organizations. However, practitioners often assert anecdotally that this method, currently dominated by financially-oriented measures, is cumbersome and complicated. While this approach may create a financially efficient portfolio, financial measures alone cannot adequately address the issue of strategic trade-offs implicit whenever an executive must prioritize and manage multiple projects under conditions of strategic uncertainty and scarce resources. Still, as a default position, most organizations turn to financially-oriented measures and associated scoring models as the primary filtering mechanism to select a portfolio of projects to execute. While this may be an acceptable but still incomplete set of criteria for the private sector, it is inappropriate by definition to adopt a method predicated on profit maximization as the primary filter in the public sector. In both instances, financial measures alone cannot capture the full complexity of an organization's strategy leaving them subject to having chosen a potentially financially viable, but incomplete, portfolio of projects that may or may not be optimal strategically. This occurs because projects that are most strategic may or may not be high performing financially.

Much of the current literature suggests the use of internally-referenced scoring models or similar decision support tools to select a final project portfolio from among the complete list of proposed projects (i.e. scoring individual projects relative to each other based on financial returns balanced against risk). To function at all, any PPM methodology must assume that a rank order of priority among projects can be determined with certainty using a consistent method and traditional risk/reward models satisfy this basic assumption.

But in a public sector context, it becomes both false and potentially dangerous to assume that profit maximization should be the a priori driver of decision-making. This is a gap perhaps inhibiting full adoption of PPM methods in the public sector or non-profit context. Given the complexity of their

social responsibilities and the diffuse nature of their multi-stakeholder missions, it cannot be appropriate to use financial returns as the primary criteria for consistent project scoring and ranking. Yet little appears in current literature that offers guidance on alternatives thus rendering PPM in its current form as an inadequate decision-making tool for managers in the public sector.

Therefore, the author proposes to add a dimension of balanced strategic measurement to existing PPM methods as a way of addressing this gap for the public sector. Its primary purpose is to enable consistent relative individual project scoring in relation to a more broadly determined array of both financial and non-financial measures and outcomes appropriate to the organization's strategy. It is based on the current theoretical foundations of the Balanced Scorecard.

The assessment of risk remains consistent with current methodologies and descriptions in the literature enabling executives to assess risk/reward trade-offs at the final project selection stage. This retains a major benefit of current PPM practice.

Based on the results of two significant case studies in the public sector using action research methodology, the author concludes that this modification can potentially contribute to both theory and practice and enhance the effectiveness of PPM generally and most particularly in the public sector. The suggested approach was well received by practitioners who felt it addressed a previously recognized deficiency in PPM methods as defined in the literature to date. Given that most organizations fail more frequently in executing their strategy rather than at formulating a strategy, and since projects are one of the most essential elements of executing an organization's strategy once determined, one could conclude that an increase in the efficiency and effectiveness of managing multiple projects more strategically will by consequence improve organizational outcomes and enhance the execution of organizational strategy.

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I would also like to recognize my colleagues at Ryerson University's Faculty of Business whose indulgence, support and positive regard for my ability to accomplish this task are embedded in its very existence – you often provided the fuel to keep me going. I especially note the active support of Drs. Wendy Cukier, Ojelanki Ngwenyama and Deborah Fels who all provided on-going encouragement and insight that helped an inexperienced researcher begin to achieve his potential and I can only ever hope to eventually be as exemplary an academic as they all are. The cheery, patient support provided by Professor Frankie Prychidny, traveling companion and close friend, was also deeply appreciated during the writing process – she is amazing! And she was joined along the way by other close friends who were all wonderfully kind to me.

The task of writing a doctorate is an intense undertaking – and one which obviously takes a lot of time. Various members of my immediate family (in its many forms!) and especially my partner and my two children, have walked with me while I completed this very intense and personal journey. My father, also an academic, was perhaps more aware than anybody of the commitment required to complete my thesis and always demonstrated a keen interest in its completion. And having been through it once already, my Mom was always willing to make adjustments to family schedules, help out with the kids or come along for the ride – wherever that might have been so that I could focus on writing. All of you had to make difficult sacrifices along the way to support my work — and of this be sure — know that I love all of you, all of the time and with all of my heart.

CHAPTER 1: INTRODUCTION

1.1 Chapter Objective

This chapter introduces the problem of interest and outlines the purpose of this study. This includes a description of the professional context in which project management practitioners currently use existing approaches to portfolio management and the challenges that arise in their efforts to do so productively. This chapter also highlights three research questions to be addressed, why these might be considered important to professional practice and relates their significance to improved strategic project management outcomes. Of particular interest is an exploration of possible gaps in practice to be addressed by proposing a methodology that may resolve flawed theoretical assumptions related to applying existing PPM practices, which are heavily financially driven, in a non-profit motivated or public sector context.

1.2 Purpose of the Study

Complex issues may arise when proven management concepts found elsewhere in business are applied to a project management setting (Checkland & Howell, 1998). While it is clear that the discipline of project management (for both single projects and multiple project programs) has, with considerable effort from academics and practitioners, advanced significantly to develop and define theories of best practice to successfully deliver project outcomes (Hodgson, 2002; Baccarini, 1999; Wateridge, 1998), the same cannot be said for strategic project selection and the management of a portfolio or projects at the enterprise level. This has been noted previously, most recently by Morris and Jamieson (2004) who declare: "we noted at the outset that there is little literature on how business strategy is translated into project terms. Further, project strategy itself is not a well-researched or written about topic" (p. 109).

However, an opposing point of view currently forms the basis of project managers being "content-agnostic" in relation to the strategic agenda of their project in relation to overall enterprise strategy. Other researchers have found that senior executives may not consider strategy to be the province of project managers rather retaining this domain for themselves (Crawford, 2005; Thomas et al. 2002; Morris 2002). Crawford writes: "…there appears to be a suggestion that supervisors prefer project managers to limit themselves to traditional project management responsibilities of time, cost, scope and procurement and not to trespass into what might be considered general management areas of concern…" (p.14)

This gap in expectations about who and how projects should be selected and executed arises most frequently at the enterprise level where we often find leaders dealing with the competing demands of multiple projects with seemingly compelling business cases vying for scarce resources with no obvious means of selecting those that should proceed. The scope of this problem often overwhelms practitioners who justifiably desire a workable, standardized methodology to help them deal with the complexities of selecting and managing a multiple project portfolio.

When we turn to the natural sources of this information, for instance, textbooks, academic journals or the Project Management Body of Knowledge (PMBOK), there is a decided lack of specifics on what to do about this problem and perhaps either a reluctance by the broader profession to admit these strategic elements into a revised definition of "project management", per se, or as previously noted a reluctance by senior management to cede any decision-making in this domain to project management experts (Crawford, 2002). If one looks to the standard five processes and nine knowledge areas of project management as defined by PMI (2004), notably absent is any indication of the project manager's involvement in strategy determination or project selection. This appears to be a deliberate omission rather than oversight – it seems to be assumed that projects selected by the executives are deemed to be "strategic" and that the project manager's role is to focus on achieving the deliverables of the projects, as defined. Of course, while this may simplify matters considerably, it may not be advantageous to overall strategic outcomes.

The Project Management Institute (PMI) has begun to take notice of this issue and on June 19, 2003 issued a charter for an internal project team drawn from practitioners to define a Program/Portfolio Management Standard. The intent of this work is to eventually incorporate a professional standard for portfolio management into a revised PMBOK which is currently scheduled for release in Q4, 2008. In the interim, a second draft of this proposed standard was recently released to the profession for discussion in May of last year (PMI, 2005). It already appears to be drawing both interest and potential criticism from practitioners for perhaps expressing a simplistic solution to what they perceive as a complex problem (PMI Wire, 2006). However, even the presence of this professional dialog surrounding project portfolio management reinforces the importance of injecting research findings into this debate.

Even if this issue is eventually addressed more directly as part of the existing professional body of knowledge, the dilemma currently exists that when project managers are called upon to address this gap in practice through participation in project selection exercises, they have limited firm methodological guidance to rely upon.

Therefore, the purpose of this study is to first explore how present approaches to do or do not deal with this issue first in a private sector context; then to explore the degree to which these existing techniques can or cannot be successfully applied in a not-for-profit or public sector context. In the event that there are gaps found in current practice, what changes in methodology might be suggested in theory and professional practice that would improve project management outcomes in the public sector, with particular reference to project portfolio selection techniques at the enterprise level?

1.3 Context of Authorship

I am currently a practicing academic having made the switch from industry to academia mid-career after 15 years of professional experience as both a senior executive and management consultant specializing in project management and strategic planning. As a result of my desire to concurrently improve the body of theoretical knowledge while ensuring that my doctoral research would be relevant to professional practice, I chose the DPM program as demonstrating the balance between project management theory and practice.

In addition to academic credentials in the form of both undergraduate and advanced degrees in business management, education and engineering, I am also a certified Human Resources Professional (CHRP) and a certified Project Management Professional (PMP) as determined by the certifying bodies for these professions in North America including the Project Management Institute (PMI).

Before commencing this study, I accumulated more than 14,000 hours of certified project management experience in his professional portfolio. I have managed both successes and failures. However, more influential than important the quantum of experience was the realization that the profession as practiced generally (and relying on the Project Management Book of Knowledge PMBOK, and other similar sources of current professional practices) was generally inadequate particularly for more advanced project management settings. Consequently, the source of insight into the gaps in professional practice was derived from my professional experiences dealing with emerging innovations that were challenging the status quo of project management practices.

This learning journey can best be described in a diagram illustrating the steps towards completion of this professional doctorate as noted below:

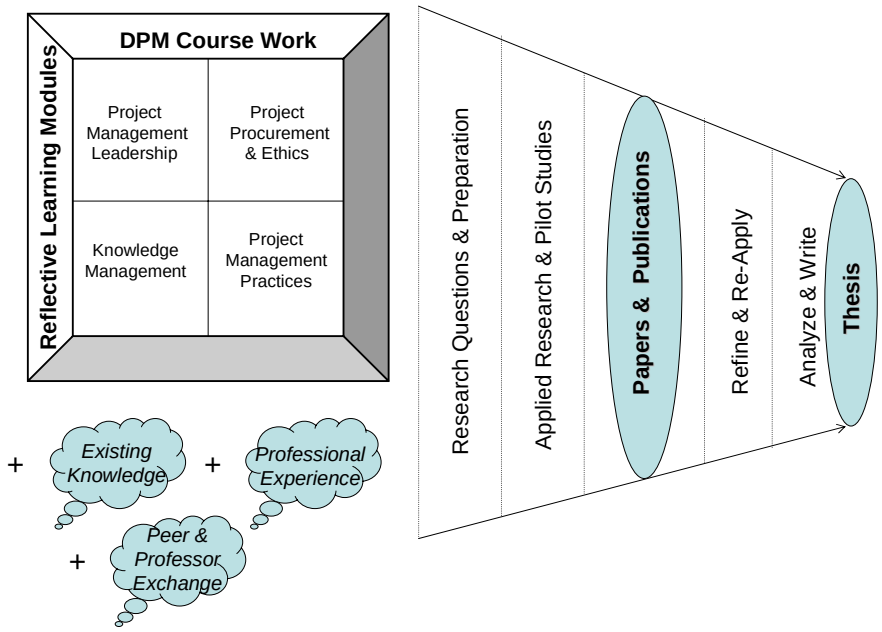


Figure #1: The DPM Learning Journey

As a result of formal course work, reflective learning modules and intense peer and professor interaction, the research preparation process was much easier than might have otherwise been the case. It is also helpful to work in a university where the value of the research process is both appreciated and applied daily.

What is less clear is the specific point at which the nature of the specific project management problem to be addressed here became evident, other than to say that it emerged iteratively through the various stages of my studies. What is clear is that the process of completing both the degree and this thesis has clearly made me a better practitioner – the completion of this project marks the achievement of a major personal and professional goal.

1.4 Current Professional Context

The PMBOK, and many other standard project management methodologies, suggest that the discipline be applied beginning, when a project is first defined. If one adopts the term "project management" in only this traditional sense, the problem would not exist because a project management practitioner would only be engaged after the point at which the project portfolio had been selected and approved for execution.

However, as a project management professional this strikes me as a very narrow definition of our field and risks irrelevancy – and it has become clearer that the fundamental lack of appreciation within organizations for the value of project management could be attributed to what

many professionals see as a lack of strategic involvement and contribution. Nicholas Carr, in his HBR article "IT Doesn't Matter" (2003), makes a similar point about IT management – but his precepts and conclusions could be applied equally to project management if the context of our profession's potential contribution is too narrowly defined, which would ultimately render us more utilitarian rather than strategic to the enterprise.

This is not a new observation, and reflects my own professional experience of trying to help executives manage the project selection processes. Morris & Jamieson (2004), in one of the more recent books emerging on enterprise project management practices, defines the problem quite succinctly. At the outset of the book they write:

> *"Projects and project management are often said to be important means of implementing strategy, but the way this happens in practice is rarely the subject of detailed review. We noted at the outset that there is little in the literature on how business strategy is translated into project terms.*
>
> *Further, project strategy itself is not a well-researched or written-about topic. Surely, there should be a case for better understanding the way the project is to be developed and managed. After all, we should not just plunge into project execution.*
>
> *If we could understand better how business strategy can be translated into project strategy, project management's overall performance would be improved significantly, and project management would have a higher profile in business management in general."*

In the private sector, practitioners and academics have begun to partially address this challenge by first adopting and then translating portfolio theory, as originally defined within the Finance discipline, into a project management context (Martino, 1995; Cooper, 1997). This approach is generally known as project portfolio management (PPM). In effect, this extends the boundaries of traditional project management by attempting to include how projects are selected, prioritized and approved to proceed, rather than a simple focus on project execution.

An important underpinning of the original theory is the normal priority placed on maximizing the financial return while minimizing the risk of the selected portfolio. This point cannot be ignored when the theory is applied to project management. This is known as portfolio optimization. This approach leads to the development of decision support tools (normally in the form of some kind of consistent scoring model) to assist in portfolio selection. Most of these scoring models emphasize selecting projects that offer higher financial returns as measured by traditional means such as return on investment (ROI), internal rate of return (IRR) or project payback. Other considerations might include amounts of available capital or resources thus forcing the selection of a portfolio of "affordable" or "doable" projects.

However, the emphasis and underpinnings of any and all of these more or less complex approaches remains primarily financial. While this may seem like an acceptable assumption in the private sector where the singular purpose of most corporations is to make profits at almost any cost (Bakan, 2003), it should be clear that this same assumption cannot and should not hold true in the public sector. In fact, others have even questioned this approach within the private sector (Elkington, 1997) suggesting its focus is too narrow and propagates concepts such as the triple bottom line and social responsibility as other points of reference for corporate performance in the private sector. So, if managing a portfolio of projects for financial gain is certainly not appropriate in the public sector and perhaps not even in the private sector, what are the right criteria then?

As is the case elsewhere in business, within the project management profession we might start by clarifying the difference between management and leadership. This challenge has been cited and explored in the past (Turner & Cochrane, 1993; Bennis, 1989; Bennis, Spevietzer & Cummings, 2001) in a variety of business settings and more often than not is connected to the idea of vision or mission (Robbins & Findlay, 1997; Katzenbach & Smith, 1993; Yukl, 1998 et al) and solutions normally involve methods related to communicating strategic intent among employees, including project teams (Thite, 1999; Briner; Hastings & Geddes, 1996; Senge, 1994). Some of this existing work (e.g. Lovell, 1993) tangentially reinforces the gap between project sponsors and project managers and their peers or followers as the primary cause of a lack of strategic understanding on project teams. Obviously, this gap only widens when expectations and strategies are not clear.

As Morris (2005) points out: "strategy management is a dynamic process; strategy is often not realized in a rigid, deliberate manner as planners often assume it may be". Similarly, it could be said that projects that are good for the business need not arise only during an annual planning cycle, thereby making the process of connecting vision, strategy and proposed projects dynamic rather than static in nature.

However, some specific step-by-step methodologies or tools for overcoming this problem at the project leader level exist (Baccarini, 1999) and while not perfect, they can nonetheless help address this issue at the single project level. And at least at the single project level, Christensen and Walker (2004) in "Understanding the Role of Vision in Project Success" have demonstrated that vision development and its translation into a strong project strategy are important contributors to achieving project outcomes.

Since achieving alignment between strategy and projects is one of the oft-cited benefits of program management (Morris & Jamieson, 2005), we must therefore conclude that one critically important aspect in any revised PPM methodology is the assurance of a firmer connection between the organizational strategy and project outcomes. This suggests a need for project management professionals to be both deeply involved and to completely understand the strategy making process and to properly address communicating eventual links within both single project management and multiple project management settings to those on their project teams. This notion has been sufficiently explored. The literature rightly calls for a clearly defined and measurable business strategy and an accompanying vision and mission for every project. This leaves the question, how does one theoretically and practically link this to PPM methodology and practices in a way that will enhance the understanding of strategy among project team members?

1.5 Gaps in Current Practice

Even if we have a clear organization strategy and it is clearly communicated, this still does not address the practical complications of systematically choosing from among competing projects at the enterprise level; all of which have likely been defined by their sponsors as "strategic" or they wouldn't likely be up for consideration in the first place. It also does not address the primary issue of various projects being proposed on the basis of financial returns ("the business case") which ultimately could be the most strategic set of projects from which to choose the final portfolio.

To explore this complexity further, one should distinguish "managing multiple projects" and "program management" from "managing a portfolio of projects". In my professional experience, they are not the same thing; although, they are often confused by practitioners and client organization in practice. In a recent study (Morris, 2005), 70% of project management practitioners surveyed in a variety of industries indicated they had implemented portfolio management in some form. However, more of the organizations in that survey incorrectly perceived portfolio management to be about managing collections of projects around a common theme (the more generally accepted definition of program management) rather than the correct interpretation of PPM which defines it as "maintaining a balanced portfolio of projects through selection of the right projects and assignment of appropriate resources" (Morris, 2005). As noted by a recent US publication by a noted IT research firm, "90% of US companies do not employ a true portfolio management strategy" (Gartner Group, 2001). My own experience with clients echoes this reality. The growing body of advanced project management literature reflects similar figures (Archer & Ghasemzadeh, 1999; Artto, Martinsuo & Aalto, 2001; Morris & Jamieson, 2005). This lack of epistemological clarity can impair appropriate debate among professionals on the relative merits of the approach since it if often misunderstood or mis-stated.

For the purposes of this study then, the term program management or enterprise project management shall be taken to mean managing multiple projects – as it involves modifying daily practices of managing a single project to the more complex but connected task of managing a group of concurrent projects with overlapping resource demands. This involves a higher degree of co-ordination across the enterprise in order to meet the "iron triangle" of cost-time and quality for every individual project. While this is orders of magnitude more complex than single project management, this is not the same capability as successfully managing multiple projects as a single portfolio.

In some organizations, this distinct program management capability might be accomplished by installing a centralized project management office (PMO) or similar competency at the enterprise level to deal with these complexities. This is often interesting and challenging work, but it is not new. The literature on enterprise project management (EPM) is sufficient to ensure that the issues involved with accomplishing this outcome have been thoroughly explored at the specific task level (i.e. Archibald, 1992; Dinsmore, 1999; Szymczak & Walker, 2003) and very specific proposed solutions exist to address gaps in best practice (Crawford, 2002) such that it is not the intent of this study to explore this particular aspect of project management practice any further. And it is clear that, once selected, any portfolio of multiple projects must be properly managed as one or more programs for proper execution.

The more acute problem, and therefore the emphasis of this study, actually precedes the execution of one or more projects. Before they are approved, projects must be formulated, defined and proposed to create the portfolio of projects that the enterprise believes will optimize its strategic outcomes. It is the appropriate selection from among candidate projects to optimize strategic results that is the more complex problem.

For the purposes of this study, this process is referred to as project portfolio selection and it is heavily dependent on creating and applying decision support tools to help executives in the enterprise make optimal project selection decisions prior to project approval and execution. This involves purposeful action by leaders in the organization to deliberately execute specific strategy trade-offs by making decisions about which projects get approved and activated and in what order. This approach treats all projects, existing and new, as a single dynamic portfolio drawing from a common resource pool with the intent of maximizing business results (Archer & Ghasemzadeh, 1999).

Modern portfolio theory (MPT) was first defined by the nobel-prize winning economist Harry Markowitz (1959). The notion of translating this financial portfolio selection and capital allocation theory to the project management domain has also been previously explored (Souder 1984; Martino, 1995; Archer & Ghasemzadeh, 1999; Benko & McFarlan, 2003). Conceptually, this approach is not new and its theoretical base seems sound. Having emerged in the early 1980's, it also now has a recent history in professional use that can be examined and considered in light of how the theory has translated (or failed to translate) into practice. But the primary value proposition espoused for the application of this technique, especially around new product R&D (Cooper, 1997), is to achieve the selection of an optimized portfolio of projects by selecting and managing all projects as a dynamic single portfolio. The basic fundamentals of this approach have been surveyed in the existing literature (Morris & Jamieson, 2005) to justify the methodology's application in a private sector context with confirmatory reports from practitioners that while they considered it valuable, various aspects of the methodology become quite complex to manage and presents challenges different from and often beyond the scope of traditional project management approaches (Archer & Ghasemzadeh, 1999). Already by 1993, Cooper was able to report that there were many relatively divergent techniques that could be used to estimate, evaluate and choose project portfolios but that many of these techniques were not widely used because they were too complex and required too much data manipulation. Or they may just be too difficult to understand by the average practitioner and so may not have been used in the form of an organized, complete process. Again, these insights become important design criteria to consider in any proposed revisions to current best practices to ensure that proposed changes are actually seen by practitioners as improvements.

So, this important challenge of usability aside, the issue causing the gaps in practice are therefore not contained within the basic mechanics of the PPM methodology but relate instead to project selection criteria and specific aspects of its implementation, particularly in the public sector where fundamental assumptions about profit maximization (intrinsic to the portfolio selection criteria in all existing methodologies) may not apply. The majority of the literature written on PPM to date suggests using scoring models that force the organization to make *relative* choices between projects based on pre-determined risk/reward trade-offs (Archer & Ghasemzadeh, 1999) that are financially oriented. The most cited criteria to be used include traditional measures of economic return (NPV, IRR, ROI, PPB) or a complex variation on the capital asset pricing model (CAPM) which attempts to assess relative returns using NPV calculations over time adjusted for varying costs of capital. Some very sophisticated attempts have been made to use Monte-Carlo simulations or Bayesian statistical theories to balance potential reward against possible risk; however, most

organizations simply use a probabilistic or qualitative assessment of risk to assess the relative reward of one individual project against another (Archer and Ghasemzadeh, 1999).

While seemingly sound on the surface, this may lead to the dangerous conclusion that there is sufficiency among the projects being presented and selected to actually accomplish the organization's intended strategy. It also implies that the default strategy of any organization is to maximize short-term financial returns. But what if this is not the case and important strategic gaps exist that are not financial in nature? Or what happens if an organization's strategy is not financially-oriented at all such as in the public sector?

It is not completely clear why we assume a profit-centric model could be universally applied in a project management context. Nor does it seem as if this fundamental assumption been challenged to any great degree in the existing literature. While this assumption may make sense in the original context of selecting a financial portfolio where investors, like corporations, are focused on maximizing their rates of return, in the public sector strategic objectives are normally more complex to define and measure than a pure profit motive (for instance societal outcomes, regulatory compliance, life and death issues, community health, educational achievement, etc.).

A more rational and effective approach to project selection would be to create conditions in the scoring model and accompanying decision support tools where one could be satisfied that:

a) a sufficient portfolio of strategic projects actually existed and, if properly selected and managed, would lead to the organization accomplishing its intended strategy;
b) and, given a clear definition of strategy, it would be possible to select projects that were most likely to have the maximum strategic contribution balanced across all aspects of the stated strategy and not just its financial performance.

It is not clear how PPM as currently defined in theory and practice can actually deliver this result because of its definite financial versus strategic orientation.

As a result of this gap, others have tried to propose methods that help address the pure financial orientation of PPM. Among the most recent efforts of note is a method that asks organizations to diversity their thinking on project selection away from purely financial measures to include notions of short and long-term risk and reward. In their book *Connecting the Dots: Aligning Projects with Objectives in Unpredictable Times* (Benko & McFarlan, 2003), the authors purport to have a method which allows this alignment to occur. However, when one considers its conclusions in

relation to its origin, the book can be summarized as using the familiar options-based portfolio method (already established in the financial world of portfolio management) to essentially "hedge an organizations bets" and maximizing pure financial returns while minimizing project risk. I assert that this is not all that PPM should be since this approach reinforces a perspective of financial optimization as the singular starting point for effective project selection.

Without the ability to specifically measure the strategic contribution of any single project against another, and without the ability to embed strategic and non-financial targets that matter for the organization as a whole into PPM scoring models, it is then not possible to select a portfolio of projects which optimizes strategic outcomes and intent. So, as presently defined and earlier reported, the PPM methodology may not be worth the substantial investment of time and effort required to implement it within the public sector because it can, by definition, only lead to a financially optimized portfolio and cannot contribute to selecting projects to support the more complex strategic issues faced in this sector.

1.6 Strategic Ambiguity in a PPM Context

There remains this vexing problem of how to provide leadership around this point by making strategic project trade-off choices when the strategic context or business strategy is either ill-defined or dynamic to the point where there is not always a clear enough connection between any individual project's intended outcomes and the organization's intended strategy. This has previously been identified as a challenge with existing PPM approaches as presently defined in practice (Kira, 1990; Rousell, 1991; Khan & Fiorino, 1992; De Maio, Verganti & Corso, 1994). However, there are few theoretical or practical solutions offered in these articles or by others to address this gap in practice.

This issue seems to be exacerbated at the project manager level when executive teams do not necessarily agree on the interpretation of an organization's stated strategy. This may lead to a situation where each individual executive deals only with their own project objectives and where there is a belief that an executive's mandate includes the conceptualization and approval of projects wholly within their scope and authority regardless of the nature of any attempt to manage all projects as a portfolio at the enterprise level. Therefore, a simple reliance on mathematical or financial scoring models to make strategic decisions is not acceptable as a solution to this problem nor will it solve the dilemma of determining which projects are truly strategic.

What is required is a model that enables decisions about projects to be relative not to each other but relative to the intended strategy of the organization. To improve support for Project

Portfolio Management methods and to avoid an executive response that sees an enterprise-level scoring system as undermining their individual power and authority, it is important that the response to this gap be a coordinated action with strong collective executive support. This problem has been particularly well summarized by Archer and Ghasemzadeh (1999, p 207) who conclude: "Firms that wish to be competitive by selecting the most appropriate projects must therefore use techniques and procedures for portfolio selection that are based on the most critical project measures, but these techniques will *not* be used if they cannot be understood readily by managerial decision makers". This reinforces the need for simplicity in the quest for improvements to current practice.

It may be helpful to clarify the focus of the study diagrammatically in the form of a simple process map:

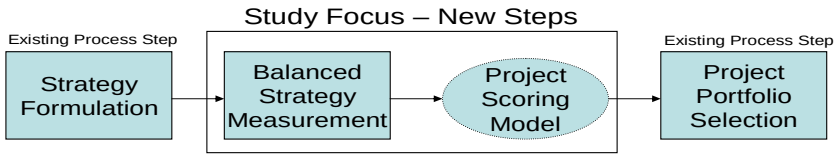


Figure #2: The Problem Statement

This is the essence of the problem facing those who are implementing project portfolio management: there is a need for a detailed method that can be understood at the enterprise level to clearly link organizational strategy and non-financial project outcomes and that will enable effective portfolio decision-making. What must be done to address the non-financial aspects of organizational strategy when scoring and selecting projects? And how do we ensure there will be a sufficiency of projects in the final portfolio to achieve execution of the complete organizational strategy? These are the central issues to be addressed in practice and they are the focus of this study.

1.7 Research Questions & Propositions

Assuming that the problem we wish to address has been adequately described and defined above, it is important to establish specific research questions and propositions that the study will attempt to answer.

Given that the focus of the DPM degree is a professional doctorate with a focus on contributing relevant knowledge to professional practice, it may be useful to cite the research questions in practical, professional terms as a starting point for the research to be undertaken.

Subsequently in this section, each individual question will be considered in detail with a more substantive explanation of the importance of the question in relation to the study.

For this specific study, the three questions to be addressed (all within a PPM context) are as follows:

1. Are the proposed changes in approach related to using a balanced PPM scoring model theoretically sound?

2. Does the proposed methodology address the practical dilemma of scoring non-financial strategic project outcomes in a public sector context?

3. Does this make it more worthwhile for practitioners to implement PPM practices in the public sector as a result and why?

The research proposition attached to these three questions is that there is an ability to define a strategically oriented scoring model for projects that would be both practical and value-adding for practitioners and executives to implement within organizations. To establish this as valid, the proposed PPM methodology would have to be both theoretically sound and also offer value by assisting organizations with the selection and prioritization of projects considering their specific strategic context and not just their financial returns. This is the purpose of this thesis.

While private sector business strategy often has a profit-making focus which makes the problems identified previously less acute for them, there is still value in refining PPM practices for this sector as well by incorporating non-financial strategic outcomes into PPM project scoring tools. So, tangentially, it is important that any proposed change in methodology be seen as generally sound when compared to the current theoretical body of knowledge with the intent of making it valuable to both private and public sector practitioners.

Therefore, the primary question to be explored at the outset is "can the proposed change in approach to PPM be considered sound?" If we satisfy this criterion up front, then we can secondarily explore its potential usefulness in a variety of settings although I intend the study to address the nature of strategy making and project portfolio selection primarily in the public sector since this has been to date an area under-served by research related to PPM practices generally.

The second important question to be answered once we have established the validity of the proposed change in approach is how to create a workable methodology that can be applied in practice so as to make strategic versus financial outcomes more visible and valuable in the project

selection process. This should lead to greater adoption by public sector organizations of PPM methods and move it more firmly into the realm of general practice within the profession. This question is underpinned by the desire to improve the fit between projects selected for implementation and the likelihood of fully realizing the organization's strategy.

This can then be carried through to an improved tracking and control system that takes into account the needs of executive decision-makers and real-time performance management of the active portfolio of projects. This requires the use of post-project audits and reviews, including managing organizational knowledge about practices that did and did not contribute to achieving individual project outcomes and the organizational strategy. Comparisons of this data can then be feed back into future revisions of an organization's chosen scoring model to refine its predictive ability. Longitudinally over time, this should improve actual project outcomes for the organization and is another value of this methodology and worthy of a longer-term study.

Because of limitations in time and costs of this study, it will simply attempt to prove the following proposition: that a revised methodology would enable a public sector organization to measure strategic intent and to make relative trade-off decisions among projects based on a strategic rather than a purely financial view of individual project outcomes and contributions.

Finally, it is important to explore the issue of how practical a methodology is in terms of its costs of implementation versus perceived benefits to the organization. This is best derived through direction interaction and observation of the commentary of practitioners trying to apply the practices. Obviously, it is possible to over-perfect a methodology to the point where it is theoretically perfect but practically useless because of the costs and time involved in its execution. There are both theoretical and practical limits in terms of project scope and size that determine when a revised PPM scoring model should be applied and when it may not make practical sense to do so.

One of the foremost constraints is the availability and completeness of data required to support a scoring model and the organization's willingness to collect and analyse these data. These limits will likely be individually developed and quite specific to each organization's own policies and practices but there may be some general principles that can be extracted that apply more universally and this study will try and identify those if they exist. In relation to the third research question above, the most practical way to answer this question is to ask practitioners if the time and cost (proxies for "effort") of implementing the revised methodology provided sufficient benefit that the effort was justified. In this study, I apply this particular approach to the question.

1.8 Contribution to the Body of Knowledge

If the answers to these questions can be found in this study, then there is a strong likelihood of a meaningful contribution to the professional body of knowledge. Although it is unlikely that all the research questions in any study can be completely answered with final authority, the suggestions and models presented here hopefully can provide initial insights into these complex issues. In turn, these findings will drive his future research agenda as an academic in the field who will continue to clarify and answer questions like these over time in the hope of contributing to emerging global project management practices.

For the purposes of obtaining a professional doctorate, it is perhaps useful to review the criteria established for the granting of the DPM degree. Based on RMIT's published guidelines for the examining standards of professional doctorates, this study must meet the following objectives:

1) Review literature relevant to the project
2) Design an investigation and gather and analyse information
3) Present information in a manner consistent with publication, exhibition or public presentation in the relevant discipline
4) Include a critical appraisal of his/her own work relative to that of others (an extension of the literature review in many cases)
5) Demonstrate a significant and original contribution to knowledge of fact, practice and/or theory
6) Include independent and original critical thought

In addition, I must demonstrate capacity to accomplish these objectives independently of supervision in future. For this study, the criterion of greatest concern is that the work shows "evidence of depth of contribution and originality demonstrated by the quality of insights drawn and the implications for PM practice raised and probed". I feel this objective has been more than adequately satisfied by the design and execution of this study.

One of the techniques recommended to candidates engaged in more theoretical studies is to assemble practitioner focus groups or use similar vehicles to establish the validity of the contribution to the body of knowledge as judged by project management practitioners. There is a further recommendation to examiners that "the candidate's work be exposed to the project management profession to indicate a potential positive impact upon project management practice". These are important objectives to help ensure that the work will be useful to colleagues and even to the examiners who are experienced project managers.

1.9 Thesis Structure

To help accomplish research that is practitioner-oriented, significant thought was given to adopting a research posture and methodology that was focused on practical problems and a thesis whose contents would be of interest to practitioners. Action research (as further described in the subsequent section on research methodology) seems most applicable to problems of practice. Derived from critical inquiry, action research attempts to answer questions in four areas (relevance, legitimacy, effectiveness and efficiency) of a proposed solution to a real world problem. Representative types of questions in these areas that a practitioner-oriented thesis might address could include:

- RELEVANCE QUESTIONS
    - It the solution appropriate to the problem situation?
    - Is the problem universal or selective in nature?
    - Is there a need for new policies, procedures or tools to support the solution?
    - Is the problem uniform across all organization types?

- LEGITIMACY QUESTIONS
    - Is the solution legal and ethical?
    - Does the solution have unintended organizational or social consequences?
    - What are the consequences of implementing the solution in the organization?

- EFFECTIVENESS QUESTIONS
    - Is the solution correct?
    - Can the solution be implemented without major disruption?

- EFFICIENCY QUESTIONS
    - Does the solution efficiently use the available resources?
    - Does it require new or unique resources, skills or abilities to implement?
    - Are there more efficient solutions?

The structure of this thesis is intended to mirror the action research approach and consider both the theory and practice related issues of the problem and solution under consideration. This can best be depicted in a diagram as shown in figure #3.

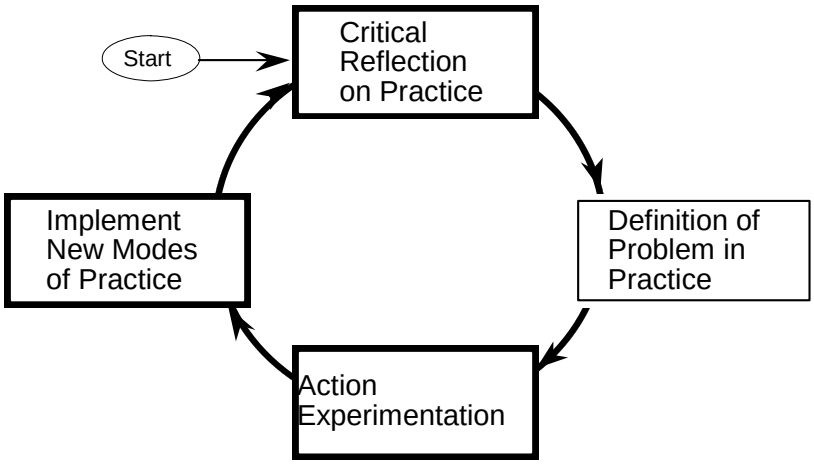


Figure #3: Action Research Steps

The structure of the thesis can be seen as mapping to this diagram as follows: chapters 1 and 2 as critical reflection on current practice, chapters 3, 4 and 5 as defining the problem in practice, chapters 6, 7 and 8 reporting on case studies where the action experimentation occurred and chapters 9 and 10 concluding with recommendations for implementation of new modes of practice for PPM.

Because this is an action research study directly involving the application of new techniques in practice, by definition it should generate findings of value to practitioners. The technique of supporting qualitative research (observation, intervention) with questionnaires and structured interviews with practitioners enquiring about their perspective on the proposed methodology meets the requirement of demonstrating new knowledge tested in active project management settings. The responses to follow will also clearly indicate an appreciation for the contribution to their own knowledge made by participating in this study. It is important that the substance of this thesis ultimately makes a difference for project management practitioners who will continue to use project management practices in various organizational settings and who can benefit from sound improvements to practice.

1.10 Chapter Summary

The value of PPM in a private enterprise setting is clearer and becoming more established in theory. Various approaches have begun to take hold in practice in larger private enterprise settings but are still in their early stages. Practitioner knowledge and application of PPM can be assumed as quite low. However, when used, the scoring models used have been primarily focused

on financial optimization and do not provide any guarantee of selecting a strategically optimized portfolio of projects. This creates a leadership challenge and while this problem may not be as acute in the private sector because of their profit-making orientation, it absolutely creates a significant barrier to the implementation of PPM in a public sector organization. This is cause for concern among project management professionals working in this context and unless it is addressed will continue to be a barrier to the successful implementation of this approach in the public sector. This gives rise to three specific research questions for further exploration in this context. The proposed solution — to develop a workable balanced strategic scoring model that can be integrated into an organization's PPM methodology — would appear to be a sound solution to addressing this gap in practice, provided that the model can be implemented practically and that its benefits outweigh its costs.

CHAPTER 2: LITERATURE REVIEW

2.1 Chapter Objective

Prior to undertaking research, it is important to view the topics of interest related to the study from existing academic perspectives and to identify where they fit into this study and how they are relevant. Accomplishing this is also a requirement of any reputable doctoral program (including RMIT) and is fundamentally important to ensuring that the thesis study is original and makes a contribution to the existing body of knowledge in the field as previously discussed.

The expectation for a professional doctorate is not that the thesis demonstrates a complete survey of all the literature in the field, but rather that it summarizes the *relevant* literature to justify the validity of the main ideas of the study in practice. Therefore, the challenge in this chapter is to synthesize the totality of the current literature to the point where only the most relevant aspects from the existing body of knowledge that directly apply to the study are reported on. This also suggests focusing on the more practical, rather than the theoretical, body of knowledge in the field while still demonstrating a command of the relevant literature.

In a further effort to ensure this thesis remains easy for practitioners to follow and professionally relevant, academic references of relevance to this study by major discipline are provided, indicated by each sub-heading (e.g., strategy, project management, leadership, finance and corporate performance management). Each of the citations noted in each sub-section had some influence on the research and is assumed to improve the completeness of the study overall. However, each individual section cannot purport to be a complete review of the literature in that discipline, but rather each is a summary of the literature relevant to this study.

For greater breadth, in addition to the specific references contained herein, there is also a comprehensive bibliography at the end of the thesis which indicates the extent of the management literature that was considered for this section. At the end of the chapter, the reader will find a summary of the application of this specific literature on the physiology of the problem under study. This is intended to make a clear connection between the bodies of knowledge of a diverse set of subjects that exist today and the nature of the specific problem in order to expand on the existing body of knowledge. Given that this is an extension of current theory and practice, it is important to determine the boundaries of existing versus proposed methodology and to ascertain that the problem in the study has not already been sufficiently addressed by other researchers. All of this is

intended to help locate the basic assumptions surrounding the theoretical framework and research approach used to complete this study which will be presented in subsequent chapters.

2.2 Strategy

Of primary importance to this study are questions of strategy in an organization. The clarity of the strategy, its ability to influence the actors in an organization to act accordingly, and the validity of the processes used to ultimately decide upon and document the strategy. These types of questions have long been studied by range of notable authors in this field such as Steiner, Porter, Prahalad, Hamer, Mintzberg, Rumelt and Teece and many others. Their emphasis is normally on issues related to strategy formulation in a business context, many including commentary on the specifics of organizational strategy and strategic nuance in the public and not-for-profit sectors as well. Having surveyed this extensive body of literature in formally and in practice, I believe there is ample evidence in the literature of what constitutes effective strategy formulation and an equal number of suggestions on techniques and tools to use for undertaking any kind of planning exercise. It would be redundant to recite the full range of literature on this broad topic here except to say that it should be clear to any reader that having a well thought out strategy that is actionable is an important component of success in any organization, regardless of its context.

Others took the emerging literature on strategic planning and applied it in an IT specific context (McLean & Soden, 1977; Earl, 1993). While IT is an issue of importance to project managers because of its pervasive presence in many organization projects, this aspect is still of less concern to this study than to the more relevant question of how strategy is executed within an organization once its been selected.

In fact, the essential element of organization strategy of interest to this particular study is not its formulation but rather its execution. As noted in the previous section, selecting and executing projects that are truly *strategic* rather than simply *financially efficient* is not as clearly understood as it should be (Morris & Jamieson, 2004). As we contemplate doing so in the context of very large organizations (in either the private or public sectors) with huge numbers of possible projects to choose from and highly complex strategies to manage, the problem does not appear to have been specifically studied much at all. So it is important to look beyond simply the large volume of general writing on the formulation of strategy in order to gain insights into the more complex, but less studied, task of executing strategy in an organizational context.

A more important area of specific interest to this dissertation contained within the domain of business strategy generally is any focused academic literature on IS/IT strategic alignment to

business, particularly in a project context. Obviously, since questions of managing projects often originate or reside in IT in many firms, innovations in terms of managing projects strategically may emanate from any current investigations of this source of knowledge. One of the major contributions in thinking about Business-IT alignment was summarily presented by Luftman and Brier (1999). Their California Management Review article in autumn of that year considered survey data from over 500 firms in 15 industries and attempted to define the six enablers and six inhibitors in an exemplar organization. Their conclusions are reproduced below in Table #1:

Table #1: Enablers & Inhibitors of IT Success (Luftman & Brier, 1999)

ENABLERS	INHIBITORS
• Senior executive support for IT • IT involved in strategy development • IT understands the business • Business/IT partnership • Well-prioritized IT projects • IT demonstrates leadership	• IT/business lack close relationships • IT does not prioritize well • IT fails to meet its commitments • IT does not understand the business • Senior executives do not support IT • IT management lacks leadership

It is not surprising that the early literature emphasizes themes such as management acumen, leadership support and project prioritization as being critical to successful business-IT alignment. Indeed, in their seminal work, Henderson & Venkatraman (1993) emphasize the need for IT to evolve from administrative computing "toward a more strategic role that supports the organization of tomorrow" (p.4) and provide a suggested framework to accomplish this. In more recent work (Ciborra et al, 2000), the theme of the globalization of the IT infrastructure (as described in 6 in-depth case studies) in relation to strategic emerging needs of these ever-larger global organizations has emerged as an important consideration for those studying business-IT alignment.

In fact, these are enduring themes that are also repeated elsewhere (Luftman, 1996; Earl, 1993; Chan & Huff, 1993; Liebs, 1992; Wang, 1997). And very clearly, effective strategic outcomes at the firm level always rely heavily on questions and of leadership and management effectiveness (as extensively explored by others including Zalenick, 1977; Bennis 1989; Briner et al., 1996; Yukl, 1998; Kotter, 1999). Many of the authors cited above note that an absence of leadership almost certainly translates into a sub-optimally effective organization in general and not just in project management terms.

In their ground-breaking work, Morris and Jamieson (2004) offer leadership core competencies based on an aerospace case study (figure 2.7, p. 31) that summarize distinctions between the leadership competencies of more senior (Project Director) and less senior (Project Manager) employees. It certainly confirms a conclusion that project management success is more about leadership than it is about management – to the extent that it might even be misnamed. The original table is reproduced here for the reader as table #2:

Table #2: Project Management Leadership Core Competencies (Morris & Jamieson, 2004)

Core Competencies	Project Director	Project Manager
Managing vision and purpose	X	
Business acumen	X	
Customer focus	X	X
Priority setting	X	X
Directing others	X	X
Leading from the front	X	X
Drive for results	X	
Dealing with ambiguity	X	
Composure	X	
Comfort around higher management	X	X
Negotiating	X	X
Building effective teams	X	X
Conflict management		X
Timely decision-making		X
Motivating others		X
Organizing (tasks, plans)		X

So, while it is quite easy to locate sources of additional information on the literature in the area of leadership and management acumen in relation to project management outcomes, the area of strategic project prioritization and selection of strategic projects is much less explored and does not seem to have attracted the same level of attention in the literature. The question remains: How do we get the strategy accomplished once it has been formulated? This is often referred to as strategy execution and is distinct from strategy formulation. In project terms, it could be expressed by the questions: "How do we pick projects to support our new strategy?" and "How do we align PM resources to focus on critical strategic outcomes?"

Obviously, prior to being able to commit to "strategic" project management practices (including potentially PPM), it would be important to be able to measure the strategic contribution of a single project, and important to understand strategy at the enterprise/organizational level in precise measurable terms. In the existing literature, we see parts of this as an early focus on "success criteria" or "benefits realization" by linking project success to externally referenced deliverables (Turner & Cochrane, 1993; Waterridge, 1998; Wells, 1998). But more recently, other authors have noted the dearth of insightful studies that can adequately define "strategic project management" (Artto, Martinusio & Alto 2001; Benko & McFarlan, 2003; Morris & Jamieson, 2004; Morris & Pinto, 2005) and what must be done to convince senior executives of the value of making investments in improved project management practices. Morris and Jamieson (2005) present several case studies from a variety of industries and point out that the maturity of strategic project management practices varies by industry and may be perceived quite differently (i.e., construction versus pharma-biotech). This must be taken into account when considering the application of advanced project management practices like PPM in different sectors of the economy.

Intuitively, it would seem obvious that for projects with longer time horizons, the more likely cause of a perceived lack of strategic contribution at project completion may be rapidly changing industry or business circumstances. To address this issue, one must be able to tie project outcomes to strategic goals and stakeholder expectations (Tuman, 1986; Davis, 1995; Belout, 1998; Baccarini, 1999). This causes anxiety among managerial decision-makers because they would likely not agree on what is actually "strategic" and whether or not a project was on-track to deliver its strategic outcomes at any point in time. This is often because strategy is not expressed in measurable terms (Mintzberg, 1994; Norton & Kaplan, 1995). This problem most likely occurs in "mega project settings", for instance the implementation of Enterprise Resource Planning (ERP) or Customer Relationship Management (CRM) technology, where the time horizon for such a significant IT-related project may run into the years and touch literally all core operations of a company. In these types of projects, it is critical that the project be directly connected and remain connected to the organization's emerging and changing business strategy and that managerial decision-makers have the ability to examine this and draw joint conclusions dynamically and continually.

Previously, and in response to this particular challenge, I explored the connection between using a strategic measurement system such as the Balanced Scorecard in a single "mega-project" setting to help maintain the connection between project results and strategy over sustained project durations (Norrie & Walker, 2004). This article builds on the profession's continued evolution

which is moving beyond a mere cost-time-quality view of project management work to a more strategic view of project management such as the one proposed in the Logical Framework Method (LFM) (Baccarini, 1999) and others. While LFM may be seen by practitioners as useful in practice, it does not address the next task required for the field's progress - extending this thinking to multiple-project settings at the broader organization level. No researcher has previously built on the LFM to take it to this level.

If we want to extend this approach to the enterprise level, it would suggest that any effective methodology for the implementation of any Project Portfolio Management system would need to consider the nature of dynamic and constantly changing business environments. This can involve team members who do not necessarily agree on the interpretation of strategy in relation to their assigned goals and objectives. This problem has been explored in the past, most notably by Bennis and Nanus (1997), Bennis, Spevietzer, and Cummings (2001), and Turner and Cochrane (1993). The existing literature contains both general team-based solutions (Katzenbach & Smith, 1993; Robbins & Finlay, 1997; Yukl, 1998) and specific project-based solutions (Briner et al., 1996; Thite, 1999). By examining this problem in some detail, it is evident that the connection between project outcomes and strategy is either ambiguous or understood by only a few key stakeholders, rather than more broadly accepted by everyone who influences the full range of project outcomes. Again, this suggests the presence of decision-making and communication challenges around the entire notion of organizational strategy. Many researchers, particularly Senge (1990), have stressed in their work that a narrowly held vision is insufficient in most leadership contexts and fails to create purposeful coordinated action among all followers. This problem has been so thoroughly studied and documented that I agree with this conclusion and this study pre-supposes that organizations have a desire to make clearly articulated strategy an explicit outcome of their efforts. Like others (e.g., Ulri & Ulri, 2000), my effort will focus on extending these existing frameworks into a project management context by designing and testing prescriptive methodologies that enable strategic outcomes.

To further allow for strategic trade-off decisions that might include choices such as delaying or cancelling existing projects in favour of newer initiatives that have higher strategic value for the same expenditure of resource, it is essential to develop a method to effectively express organizational strategy in measurable terms. To enable this outcome, executives would need a method that permits agreement on these decisions and would be more robust than simple "gut feeling", otherwise, the process could descend into political chaos as each executive fights for his or her own particular point of view.

This is not an appropriate decision-making method, although in one case study for this thesis, an "executive scrum" was actually an important part of their project decision-making process, despite the fact that single executive expressed it was both inappropriate and ineffective. Nonetheless, it is quite common that the only manifestation of organization strategy that is seen to be reliable is found in the actions made by the executive team (Kotter, 1990). This limits the ability of the rest of the company's employees to make appropriate strategic decisions without direct executive input. Therefore, any strategic measures or models that enabled a more highly articulated level of understanding about strategic intent among the organization's employees would be of general benefit to the firm in executing its strategy. While on occasion it may be partially contemplated in some existing implementations of PPM, it is not evident that the objectives of clear communication among decision-makers and a strong connection to underlying strategy has been accomplished in any systematic way within a described methodology to date (Morris & Jamieson, 2004). Given what is at stake in most cases, it is not prudent to leave this to guess work; thus the purpose of this study is to explore and resolve this dilemma by proposing a possible solution to the issue of strategically-oriented project scoring, selection and prioritization.

2.3 Project Management (Single, Multiple, Enterprise)

The literature on project management is extensive and is growing at a rate proportionate to interest in the field, among both practitioners and academics. The literature more often focuses on the operational or individual task level and authors often try to distinguish between individual project management techniques and multiple project management techniques at the enterprise level; however, there appears to be no doubt about the business value of project management (Ibbs & Kwak, 1997). However, there is also little doubt that most executives see project management as a tactical, rather than a strategic, contribution to their organizations (Thomas & Jugdev, 2002).

All of the general literature related to the effective management of projects on-time, on-budget or on-cost (often referred to as the triple constraint or iron triangle by practitioners) use methods to determine critical success factors in project management (e.g., Martin, 1982; Zells, 1991; Drummond, 1998; Baccarini, 1999; Byers & Blume, 1994; Clarke, 1999; Forsberg & Mooz, 1996; Whitten, 1995; Wateridge, 1999; Shank, Boynton & Zmud, 1985; Cooke-Davies, 2002; and many others). Articles or case studies that deal with single or multiple projects in a specific industry, while still important to the profession, are of less relevance to this particular study than those which deal with a holistic view of general project management processes. Of particular interest are citations that include early stages related to existing project selection techniques – the problem of study in this thesis. This is implicit in the terms of reference of this study where the concern is on *selecting* strategic projects not on *managing them*. Based on recent efforts within PMI to

develop and publish OPM3 (their own project management maturity model), if an organization can locate a methodology to pick the right projects, there are ways of ensuring sufficient capability and maturity in the firm to actually execute the project itself. Therefore, the remaining concern would be to ensure the assigned practitioners are already experienced in effective single and multiple project management techniques. However, there is scant research on this particular focus area (project selection) and others (Belassi & Tukel, 1996; Archer & Ghasemzadeh, 1999) have already identified the struggle we will have as researchers if we are to engage in a conversation about "strategic project management" when the difficult issue arises of establishing the specific strategic value of a single project. Dinsmore (1998) clearly identifies projects as strategic building blocks and notes the importance of selecting them appropriately, but he did not specifically define an approach to scoring projects that would be useful in a PPM process. So, this thesis appears to be at the apex of this problem, at a point in time when the profession is struggling with these issues.

Another critical area of the body of knowledge in project management related to this study is benefits realization – or more colloquially – how one determines if a project has been "successful" using post-project reviews and comparisons to the originally proposed business case. While there are varying views on this in the literature (Busby, 1999; Baccarini, 1999), if one is to make relative comparisons between individual projects to try and make project selections, a determinant of what constitutes the expected benefits and outcomes of the project (both financial and otherwise) in clearly succinct and consistent terms would have to be present in each project proposal to enable trade-off decision-making. Researchers are only beginning to deal with this important question (Turner & Cochrane, 1993; Cooke-Davies, 2002; Jugdev & Thomas, 2002; Walker & Nogeste, 2004) as they are starting to suggest models for categorizing and comparing benefits realization between projects using a consistent framework.

One important element in any project is its originating charter – a tool used to improve the clarity of project outcomes (Lavence, 1996). Similarly, others have concluded that a good project charter also improves communications about a project (Hartmann, 2000; Gioia, 1996). The most recent studies to emerge suggest a possible correlation between a poor project charter and increased risk of project failure (Christensen & Walker, 2004). This confirms the importance of implementing a clear and usable project charter in the planning stages of any project, as it can serve to substantially guide project execution.

This conclusion may also be related to earlier observations of attempts to tie project success to business strategy in ways that are visible to project team members. I agree that project failure can be the result of a poor charter; but it may also be possible that a weak articulation of business

strategy in the first instance challenges any effort by project managers or executives to create clear project charters. This further amplifies the problem of aligning projects to strategic measures that is at the core of this thesis. So, it would seem that identifying the charter process as the singular problem risks an oversimplification and therefore suggests that bad project charters are a symptom, rather than the cause, of the underlying problem of strategic ambiguity.

While there is some tangential literature related to the activation of projects to reduce capacity and resource conflicts, it is associated with creating and managing a Project Management Office (PMO), such as Crawford (2002), rather than focused on PPM. But it is important to note that of the literature used for this study, this interest seems to be quite emergent and relatively new (i.e., within the last five years). So while this supports the emerging interest in the field around these topics, it does not illuminate practice to any great extent. Nonetheless, the inherent assumption of note is that, once again, the selection of the project portfolio is assumed to have already been done so the role of the PMO is then to ensure that projects are executed at a tactical level.

"Ensuring that projects get done correctly – the real goal of the PMO – is a different matter than ensuring that the correct projects get done" (p. 47) is a quote that appears in the February, 2001 edition of the PM Network (the publication for members of PMI) in an article entitled "Choosing the Right PMO set-up". Similar issues around the proper construction of, and the variety of possible configurations of, a PMO in relation to project performance have been identified in the literature previously (Hobbs & Aubry, 2006; Dai & Wells, 2004). Once again, we see the profession's apparent emphasis on execution rather than the strategic selection of projects. This article, written by William Casey and Wendi Peck, describes a now common set of labels for various types of PMO's (using analogies to weather stations, control towers, etc.). The entire issue that month was devoted to the "emerging question" of what a PMO is or is not and how it should be set up for maximum strategic advantage. This lends credence to the relative newness of these concepts within the profession and the challenges project managers face when trying to ascertain how to move to a new level of strategic contribution.

Nonetheless, firms who have moved extensively into project management as an organizational modality often turn to a PMO as their next evolutionary step (Redmond, 1991; Raz, 1993; Butterfield, 1994; King & Anderson, 1996; Munns & Bjeirmi, 1996). Few of the cited sources identify the issue of strategic measurement specifically or delve into the issue of project prioritization and the role portfolio management in a meaningful way other than to suggest that the need to prioritize projects exists (and the implicit assumption, once again, is that the firm knows

how to do this). As previously stated, strategists have surmised for some time that prioritizing is critical (Luftman, 1999); so the conclusion that we need to do this is obvious – rather the question remains for practitioners as to how to do it most effectively?

As far back as the mid-1980s, Tuman (1986) and Cleland (1986) concurrently recognized – and simultaneously presented findings – that contradicted the then-common notion that on-time, on-budget, and on-quality were the most strategically important and valid measures of project success. Yet almost two decades later, professionals and academics alike remain quite committed to these concepts and the pervasiveness of the triple-constrained model of project management is evident in the literature. This dependency may indicate the lack of a definitive alternative to this traditional model. At the project prioritization level, this means that we often use techniques that influence us to choose projects we think might be "successful" on this basis.

Other researchers (Turner & Cochrane, 1993) propose matrices and methods to deal with projects whose goals were less clear and where traditional project management methods might fail to deliver as a result. One could surmise that, perhaps, projects perceived to be at high risk for failure might not be selected to proceed, even if those same projects were perhaps strategically essential (Dinsmore, 1998). The literature seemingly assumes that firms know how to select and prioritize projects appropriately.

However, there is some emerging research (Schwalbe, 2001; Norrie & Walker, 2004) challenging current thinking on the triple constraint and instead proposing the notion of "on-strategy" as more relevant to project management success. The concept is noted as "emerging" because this novel concept has not yet made it into the mainstream project management literature or the more recent textbooks (i.e. Kerzner, 2006) which all fail to mention this when making reference to the traditional constraints of project management The concept is more easily represented in the diagram below reproduced from Norrie and Walker (2004):

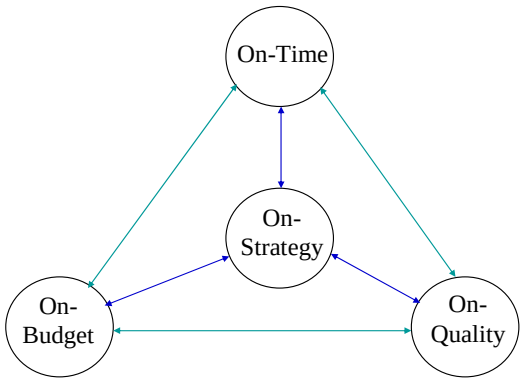


Figure #4: The Quadruple Constraint View of Project Management

Learning to distinguish between influence and control over project management decision-making often means the difference between temporarily controlling an outcome by forced compliance versus actually creating a lasting change in people's behaviour (Greiner & Schein, 1988; Kotter, 1999; Loosemore, 1999; Pinto, 1998). The literature suggests that project managers eventually come to the conclusion that they cannot oversee every decision to ensure that their project team members conducts themselves appropriately in performing their roles and realizing the project. So, most project managers revert to some kind of exception-based or situational leadership method to address ongoing challenges, as recommended by established theory (Hersey, Blanchard, & Johnson, 1996). While somewhat effective, this tactic does not completely address the issue because the traditional triple-constraint deals only with decision making related to on-time, on-cost or on-quality project delivery. This continues to leave a gap regarding how on-strategy decisions are made within a project team and the role of the project manager in making this happen.

On this point, we turn to the literature around trust and its link to commitment and effective decision making (Meyer & Allen, 1991; Lewicki, McAllister and Bies, 1998). This topic may be addressed uniquely in reference to project teams but, in fact, it shows up in most organizational settings (including both the private and public sector contexts which make it an important aspect of the body of knowledge related to the constituency of this study). Normally, there is a positive correlation between enhanced trust between employees and employers (often represented by the proxy of the project leader /executive sponsor and the project team) as noted in the Lewicki et al (1998) study.

Of equal importance is the conclusion that when trust is high and commitment is high, there appears to be improved decision making because of an openness to both expressing, exploring and adopting alternate points of view in any particular discussion or debate ultimately leading to a decision (Bennis, 1989; Bennis & Nanus, 1997).

One of the factors that impugns trust is an over-reliance on hierarchy and positional authority as defining who makes a decision rather than on the process of how an optimal decision should be made. The emphasis in the literature on the priority of process over structural authority (Bartlett & Goshal, 1995; Pinto, 1998) is understandable; this approach generates improved outcomes and ultimately, the successful execution of a project. From direct observation of more than 100 project managers and participants of varying seniority during this study, it can be seen that the most competent project managers build strong, trust-based relationships with project team

members. They listen attentively to recommendations and challenges from team members at the point at which they are required to make a decision. This does not mean divesting complete authority or ignoring structure; good leaders accept ultimate responsibility but also enable and empower their teams to help generate a collectively successful outcome for which they are prepared to share the credit. Yet, they accept personal liability for failure if something goes wrong – an updated version of the "captain going down with his ship".

Task and process management at the simple project level must be rendered relatively easy to codify, learn and apply if one is to consider project management a profession. The Project Management Institute, the largest certifying body for project management professionals in the world, publishes the currently defined best practices in the discipline in its Project Management Body of Knowledge (PMI, 2000) which clearly focuses on the need to apply and measure adherence to standardized steps in the management of a project. The notion of the importance of project-based measures (and associated tracking & reporting of the work associated with project management) has been noted before (Hartmann & Jearges, 1996; Kiernan, 1995; Thamhain, 1994). Again, while this basic principle is valid; there seems to be a need to ensure that the measures being used to track project success are truly strategic and not purely operational. Otherwise, the risk of delivering projects on-time and on-budget but with limited value may arise.

However, appropriate leadership decision-making at the strategic level is all together different from task or process decision-making even with the inclusion of strategic measures as a guide. In their landmark work, *Project Leadership* (Briner et al., 1996, p. 67) the authors emphasize the role of a "sustainer" as a key aspect of successful project sponsorship. They also stress the need for project managers to orient themselves towards alignment and away from enforcement – an elusive concept which entails the creation congruence among the team and with the project's goals by using a variety of activities and sources of power to influence others to act in accordance with the project leaders' desired outcomes, rather than relying on a traditional command-and-control management orientation.

Similarly, a colleague in the DPM program is exploring decision-making models in project settings and talks about the "paradox of control" arising from an effort to over-control project execution at too micro a level. Rather, the use of strategic measurement and strong leadership practices can encourage proxy decision-making from each team member in their individual sphere of control. This helps align decision-making to the overall project goals and improves project execution. But this can only occur if the individual project team member has a thorough

understanding of the project's strategy and its connection to organizational goals and objectives (Bourne & Walker, 2005).

These studies seem to conclude that a more strategic, rather than a purely financial, scoring model embedded within best practices for PPM would achieve a higher degree of alignment between strategy, project team alignment and realization of benefits from improved project outcomes.

2.4 Leadership in Project Management and Change Management Contexts

A review of the current literature reveals that numerous projects are perceived as failures due to poor leadership and enfeebled articulation of the project vision or a lack of meaningful business impact. One notable example is the infamous Taurus project in the UK which failed after spending more than £500 million (Drummond, 1998). The root cause of the failure can be directly attributed to poor executive oversight and ineffective project management techniques that would have otherwise flagged the project well ahead of its projected end date as a major failure risk.

This example demonstrates how organizations fail to align their overall strategic goals with the specific objectives of individual projects - clearly a project selection issue that is of relevance to this study. This may also reflect, as noted above, how quickly business strategies evolve in relation to project timelines, especially in mega project settings.

The current literature indicates general agreement among researchers on the differences between leadership and management (e.g., Bennis, 1989; Kotter, 1990; Zaleznik, 1977). There is also an extensive body of literature that has already explored this domain previously and exploring these differences in this section has limited utility to understanding this study. It is important to note that, in general, researchers agree that leadership must exert itself most when the business context is vague, dynamic, or challenging. However, there appears to be a lack of citations in the literature indicating how to accomplish this in a project management setting when these same conditions are present.

By definition, project management is also about implementing a change program (Turner et al, 1996; Briner et al., 1996; Cleland, 1999; Turner & Cochrane, 1993) in the form of system changes — as in IT projects — or in building projects, new automotive products, airplanes, or weapons systems. This creates a dilemma for project managers who, when faced with a set of

ambiguous circumstances, do not appear to have very many tools at their disposal to address these situations. Again, adding a measurement component may help address what changes should occur and why they are of strategic importance providing that the strategy itself can be made more measurable.

Another possible leadership issue arises when a corporate culture or a particular internal set of values is incongruous with project success. Again, without measurable project outcomes, it is difficult to both identify and challenge culturally-based norms or values that may be barriers to project selection or implementation. This topic is well studied in the abundance of change management literature (Collins & Porras, 1996; Kotter, 1995) and, seemingly, the symptoms and causes of this kind of discord at the corporate level are well understood. More recently, researchers have begun to assess the impact of this topic in a project context (Yukl, 1998), although primarily from a social-psychological perspective. Within this dissertation, I will examine this problem with the intention of enhancing the way project sponsors and managers use strategic measurement to address this.

Since a project manager acts as both a leader and a manager at the same time, and depending on the project and personalities of the project sponsor(s) and project manager(s) involved, the extent of this overlap (Briner et al., 1996; Cleland, 1999; Morris, 1994) is an important issue within the profession. While important to note, the expectation of this study is that both project managers and sponsors are generally competent in their domains and are able to interact with and understand the issues presented by this study.

As the project management literature shows (i.e. Turner & Muller, 2005) the role that effective leadership plays is widely recognized. For example, Briner et al., (1996) state, "The most significant success factors for project teams is that they have a common and shared idea of what difference they are trying to make as a result of the project" (p. 89). A definition of strategic project outcomes requires exploratory dialogue with project stakeholders, and this requires that organizational leaders have a clear picture of the organization's strategy and link it to these preferred project outcomes. The development of a project's vision is an essential element of the leader's role at the project conceptualization and proposal stage (Christensen & Walker, 2004).

To prevent the loss of a clear project vision, Baccarini (1999) and Davis (1995) offer the Logical Framework Method (LFM) as a method for defining project success. This is an important work as it significantly contributed to the improvement of methods of connecting projects to strategic outcomes. However, the method could be strengthened by linking the LFM to a strategic

measurement framework to improve the notion of measurable outcomes. Doing so would enhance the clarity of the team's objectives by implementing its strategy and realizing its projects. It would also enable the method to move from potentially being focused on single projects to multiple projects managed as a portfolio – something it cannot address in its present form. In so doing, organizations could help project teams connect specific project objectives to their current strategic gaps. By linking the outcomes of projects with a measurable vision, organizations could enhance the commitment of the individuals on its project teams to their projects.

Another area of interest is the emerging research on project leadership and the discontinuation or cancellation of a project. For instance, Keil (2000) writes, "ending runaway projects is one of the toughest executive decisions". He proposes, based on years of accumulated research work on this topic, a four stage process managers can use to stop the flow of resources to a troubled project and implement an exit strategy. Drummond (1998) provided additional insight into this problem when reporting on the troubled Taurus project in the UK and earlier references still (Brockner, 1992; Anthes, 1996) note the challenges using their own case studies. All these researchers agree that it is difficult to disengage from a project once it has starts and this is problematic as it disallows executives from creating an engaged team. Again, this aspect of the literature would appear to support the need to establish strict methods that do not rely exclusively on executive will or willingness to cancel non-strategic projects; but rather on a systematic way of comparing current projects with proposed projects and determining, at the enterprise level, those which should be stopped or started on that basis.

What is clear is that best practice implicitly assumes project teams have a clear vision of the project, devolved from a process led by the executive sponsor and/or project leader. This is the process used in project management's traditional triple-constrained model, which focuses on time, budget, and quality outcomes and pre-supposes that all projects that are approved are therefore strategic. What if the projects were not strategic? Or what if the strategy evolves more quickly than the project's timelines? Therefore, it is easy to negate this assumption because organization strategy is so often not expressed in measurable terms. Such strategic ambiguity creates severe leadership challenges and likely renders it impossible for leaders to determine exactly what strategic contribution to expect from any particular project. This effect creates the decision-making challenge that is addressed in this study.

2.5 Finance, Capital Allocation and Portfolio Theory

The origins of PPM lie in the theoretical domain of finance – specifically capital allocation and investment portfolio theory. The basic notion of balancing a portfolio between risk and return

is common knowledge and is understood as an overarching objective of sound financial management, both personally and corporately. This was first proposed by Markowitz (1959) and it is a notion for which he was later awarded the Nobel Prize in Economics.

But when we move more deeply into a study of the mechanics of portfolio theory, we find in the associated literature in-depth discussions about how to assess, measure and relate risk, and return to assess the true value of a potential activity (Churchman & Ackoff, 1954 for example) before assessing its value. As time goes on, manual calculations are replaced with more substantive mathematical models and model portfolio constructs (Sharpe, 1964; Saaty, Rogers & Pell, 1980; Canada & White, 1980 et al.) that are often associated with the term "efficient frontier" as the place where return is maximized for any level of acceptable risk. The focus of the early writing in project portfolio management often requires a complete economic appraisal of the "fully loaded" costs of a project to compare its anticipated benefits with its costs and risks. Retrospectively, this seems to be an obvious recommendation but it was breakthrough thinking at the time. They suggest that companies prioritize those projects that offer the highest likelihood of a higher returns, measured capital consumption and a lower probability of risk (something we take as a given in project management methodologies today). In their book *Connecting the Dots* (2003), authors Benko and McFarlan provide a chart that summarizes the comparison between Financial Portfolio Management and Project Portfolio Management as follows:

	Financial Portfolio	Project Portfolio
Assets	Various financial instruments with distinct characteristics.	Various projects with distinct characteristics.
Diversification	Employing multiple financial instruments can reduce risk.	Monitoring project variables – scope, approach, vendors, project managers, etc. – can reduce risk.
Goals	Income and capital gains.	Profitability and growth.
Asset Allocation	Invest according to individual investment goals.	Invest according to overall organizational intentions.
Connections	Correlation	Interdependency

Figure #5: Summary Comparison of Portfolio Management Paradigms (Benko & McFarlan, 2003)

While interesting, these discussions are relevant to PPM only to establish that the *a priori* objective of creating and managing a portfolio is always to *maximize financial return while minimizing risk*. Thus, the optimal portfolio at the efficient frontier is assumed to generate the highest possible

return for any given level of risk. In terms of investments, problems can arise because of the inherent risk in the financial instrument itself or as a relationship risk derived from how an instrument or portfolio of instruments relate to each other. Over time, this has led to the basic assumption that risk is minimized through a diversified portfolio. This is known as the assumption of collaborative risk (Maginn & Tuttle, 1990) and it assumes each financial instrument in the portfolio is not inter-dependent and that a choice to include or exclude it can be made without consequences.

These fundamental assumptions underpin the current approach to portfolio management and are essential to the proper operation of various optimizing models used to achieve this objective and create the difficulty that this study recognizes when these methods are applied in a non-profit setting.

When we examine the earliest references to project management in this body of literature, the reader should be aware of its specific application in a marketing context (initially in the selection and management of a portfolio of new products or R&D efforts) such as Pessemier & Baker, 1971 where we see references to "program and project decisions" in a research and development context but are still not quite at the stage of complete treatment of all current and proposed projects as a single portfolio. An oft-cited founding reference to PPM is Souder (1973) in the article "Utility and Perceived Acceptability of R&D Project Selection Methods" notes that the fundamental issue of project interdependency is distinct from the independent collaboration of financial instruments. Even this title allows the reader to see the early alignment with the financial and mathematical origins of portfolio theory being applied in project management settings. Souder proposes that a more structured model (including mathematical calculus to assess relative risk between projects) would enable corporations to make more informed decisions about which projects to continue and which to stop. Souder followed up in 1975 with a key article in Management Sciences entitled, "Achieving Organizational Consensus with Respect to R&D Project Selection Criteria". Therein, he advocates for the use of consistent criteria across both existing and proposed projects for the purposes of making relative comparisons between them. Thus we begin to see the emergence of PPM in its current incarnation. However, the approach was still considered to be too complex to be applied by many organizations at the time (Martino, 1995) and so was not often used in practice because of the substantial amount of data and analytical processing required to reach conclusions (Archer & Ghasemzadeh, 1999). It is also clear that the theories on how to combine these disciplines more seamlessly (financial theory, the R&D process and project management) had not yet completely emerged.

As the next two decades unfold, academics continue to be interested in the seductive theoretical simplicity of portfolio theory and it remains a dominant theme in the literature. A development of note is that as desktop computing becomes more readily available, and as the models and approaches become more refined and less complicated to apply, we see more evidence of the in-practice adoption of some of the process recommendations in the literature. Particularly, this can be seen in successful corporate case studies in industries like pharmaceuticals, consumer products and industrial chemicals. Two of many such examples would be Rzasa, Faulkner and Sousa (1990) who explore the application of these techniques in the R&D project selection at Eastman Kodak and Krumm and Rolle (1992) who looked at the application of decision support and risk analysis at Du Pont. Nearly twenty years after its first emergence in the academic literature, we finally begin to see some practitioner application of the theory in practice.

By 1992, we see continued evidence of the application of capital asset pricing models specifically to project assessment and selection (Khan & Fiorino, 1992) and interest in how to refine and more accurately forecast and price multi-year investments and returns over time in project settings.

Subsequently, Robert Cooper (a Professor of Marketing at McMaster University) began to evolve the process design combining "stage gates" with the interim assessment of potential risk and return at each stage of the new product development life cycle in order to recommend specific decisions at each stage of a company's project management life cycle (Cooper, 1993). This was considered a practical breakthrough by many practitioners in terms of recommending a sound business process that applies seemingly complex theory in a precise, prescriptive and practical way which organizations could understand and adopt. His full range of work in this area is cited frequently and has been adopted by many corporations around the world. His sound linking of these core disciplines (Finance, R&D and Project Management) has been subsequently reviewed and refined through both practice and additional research on new product R&D and innovation (Khurana & Rosenthal, 1997 et al.). Subsequently, Weill and Broadbent (1998) come the closest to any reference found by linking portfolio selections to projects which exhibit not only financial returns but acknowledging the value of strategic returns such as better information flows, improved business integration or improvements in quality or customer service. However, while the article links to the Balanced Scorecard concept, it does not directly articulate the link between project scoring criteria and the emergent strategy measures. However, there is some early evidence emerging of a desire by practitioners to now establish clear links between project portfolio selection practices and business strategy intentions if not the measures themselves (Benko & McFarlan, 2003; Artto, 2001).

However, one thing remains common to all of these previous citations: they are primarily based on making more profit by maximizing return while minimizing risk within a private sector context. Little has yet been written about how to apply this theory if this critical assumption is not present, as is the case in the not-for-profit and public sectors. This conclusion supports the need for this study as a way to address a gap in both theory and practice.

2.6 Balanced Scorecard & Performance Management

There is an extensive amount of work that has appeared in the literature related to the application of the Balanced Scorecard in corporate settings. Much of this literature stems from the original work of Drs. Kaplan & Norton (1993; 1996; 1998; 2004) who defined a multi-dimensional framework that translates an organization's strategy into specific, measurable objectives around four specific dimensions (financial, customer, internal/operational and innovation & learning). The measures associated with each objective provide a "dashboard" or "scorecard" of the organization's progress towards its objectives over time.

Subsequent authors have built on this work (for instance the "Success Dimensions" framework by Shenhar & Dvir, 1996 and the Dynamic Multi-dimensional Performance framework by Maltz, Shenhar & Reilly, 2003). The authors in most cases simply extend the methodology to specific settings (i.e., addressing the more rapid rate of business change in technology firms, as Shenhar & Dvir suggest) or provide suggested enhancements to the original methodology to repair perceived gaps (such as the emphasis in the DMP framework, other "soft" factors and its incorporation of environmental variables of performance).

Beyond the articles defining the methodology itself, other researchers have explored the issue of balanced performance measurement. A review of 51 empirical studies of entrepreneurial firms published between 1987 and 1993 reveals that most firms only use financial measures to gage their success (Murphy, Trailer & Hill, 1996) and, not surprisingly, the most common performance measures used related to efficiency, revenue growth and profit. However, the use of any single dimension (i.e., finance) as a surrogate for overall organizational performance can produce a false result. Chakravarthy (1986) used the firms noted by Peters & Waterman (1982) in their book *In Search of Excellence* as "excellent" and used classic financial measures (ROE, ROC, ROS) to attempt to correlate the performance of these firms with their financial results. He concluded that these measures were too narrow an interpretation of performance and were incapable of distinguishing future differences in performance among the firms and only reported on historical performance.

This conclusion directly supports the notion of balanced performance management as the superior method for measuring strategic accomplishment, as the BSC purports to do.

While some limitations of the BSC have been identified (for example, Atkinson, Waterhouse & Wells, 1997; Smith, 1998), the critiques are relatively minor when compared to the number of organizations successfully using the BSC and these limitations do not impair its overall intended purpose: clarifying firm strategy.

Therefore, the methodology has been extensively researched, applied and tested to the point where I am prepared to accept this methodology as being a valid and value-adding tool in a private sector setting. In addition, I have had the pleasure of working within the BSC community (among both academics and practitioners) almost since its inception and has found it valuable in his practice. While practical experience using the BSC in real-life setting is an advantage in some respects, it poses a potential bias in favour of implementing this particular methodology over any others. Therefore, it is important to demonstrate that others, both prior to and after Kaplan and Norton, have done notable work in this same genre and domain (Eccles, 1991; Sveiby, 1997; Nealy, 2002). In some instances, they have proposed modifications or variations to the existing notions of balanced performance management frameworks or provided additional examples of their application in specific settings. However, generally all experts in the field support the notion that if measurement in a corporate setting is to be effective it must be multi-dimensional and represent both the tangible and intangible components of organizational strategy (Nealy, 2002).

At the outset, the primary focus of the balanced scorecard was its application in the private sector; in fact, with an emphasis on large, F-1000 US companies initially. Over time however, the methodology has established itself as having equal relevance in the public and not-for-profit sectors (albeit with slight modifications to the application of measures in the financial domain because of the absence of a profit motive) with the most recent book by Kaplan and Norton (2004) citing several case studies from these two sectors. Equally, there is an emerging body of work by those who are attempting to specialize in the application of the BSC in government (Whittaker, 2002). The fact that other researchers feel the BSC is both applicable to and useful for the public sector practitioner is an important endorsement..

The recommended modifications by these authors on the original Kaplan and Norton methods seem generally useful and improve the usability of the BSC methodology in the public and not-for-profit sectors. As a result, some practitioners, myself included, have incorporated these adjustments into practice. Again, of ultimate importance is the clear supporting conclusion that the public sector, like the private sector, needs to align its measurement with strategy. The benefits of

applying this approach at the organization level have been clearly substantiated and should be noted as best practice by leaders in this sector.

While proven at the enterprise level of both the private and public sectors, less has been written about connecting the balanced scorecard to project management methodologies. Recently, the beginnings of interest in this topic (Stewart, 2001; Stewart & Mohamed, 2001) have emerged. And some researchers have attempted to apply it to tangential areas such as IT service level management or service level agreements including for specific project demands (Van Grembergen et al, 2003). This would seem to support the value of the basic methodology as a strategic measurement tool that can be applied in new ways. However, the overall lack of citations may be due to the rather recent nature of the BSC itself and the natural inclination of researchers to go from the macro to the micro level of any new concept over time. It is interesting that even more recent citations around PPM (for instance Artto et al, 2001; Morris & Jamieson, 2004) do not directly touch on the BSC and only obliquely refer to the issue of strategic measurement. Perhaps as more studies begin to further explore the mechanics of applying the BSC in new contexts, their findings will spur other researchers to focus on this area.

Of some note is that these studies primarily apply to IT and managing individual IT-related projects and do not apply to the general domain of enterprise project management or portfolio project management. Results from one earlier study (Hersey et al., 1996) suggest that a project level BSC can become a tool that provides an indirect form of influence on daily decision-making within a project team. And Norrie and Walker (2004) establish this tool as having a powerful influence on project outcomes – perhaps more so than other methods of influence in terms of accelerating project outcomes. But generally, the limited nature of literature in this area supports the importance of this study as it attempts to link the use of balanced performance management techniques like the BSC with more advanced project management methodologies and, particularly, with project portfolio selection.

2.7 Summary of the Literature in Relation to the Physiology of the Problem

Within a business context, there are generally sufficient tools to help any business develop and articulate its strategy. This is often referred to as strategy formulation. In the interests of brevity and utility, this thesis does not explore the variety of tools or methods of defining organization strategy. There are many leading thinkers in the field who suggest methods that allow an enterprise to deal with uncertainty in their business environment and make deliberate strategic choices within a context of ambiguity. Among the more notable contributors in this area is Henry Mintzberg, though there are numerous other researchers (Steiner, 1979; Moss-Kantor, 1990 &

1992; Hax & Majluf, 1996). Again, in almost all these instances, the established methodologies speak to strategic choices at the corporate level but do not address the specific problem of linking these methodologies to individual project strategy or to methods that drive project selection as previously noted above. Rarer still are any citations proposing how to keep a portfolio of projects and a changing business strategy in sync, dynamically, particularly if the company may have tens or hundreds of projects underway at the same time around the globe with different planning cycles for each. This is a practical problem whose complexity cannot be under-estimated; it can create a challenging management dilemma.

There is a need within our field for professionals to acknowledge that the actual task management of a project rather than the selection of strategic projects is the relatively easier of two things to accomplish. For many years, the emphasis of the profession has been an "on-time, on-budget and on-quality" delivery promise. This is known as the "triple constraint" or the "iron triangle" and it is embedded into the fabric of the profession (PMBOK, 1996, 2000). For years, it has been the basis for training those new to the profession around the world.

Yet, the task of identifying and ensuring that a project is truly strategic and that the right projects for the enterprise are the ones actually undertaken is less pronounced in professional discussions. This may be hampering development of the project management discipline since this critical strategic contribution is not even explicitly considered by the PMBOK as a necessary component of standard project management practice. Others in the field (Swalbe, 2001) appropriately suggest that a "quadruple constraint" (as discussed in section 2.3) would be a more effective way of thinking about the potential contribution of project management.

Unless we change as a profession, it will continue to be difficult for senior executives and CEO's to establish the real strategic contribution of project management within their organizations. More often than not, project management is seen simply as a technology or rote methodology to accomplish the execution of a project or group of projects. They do not see project management as fundamental to the execution of the organization's strategy. This can make the recognition of the need for the installation or revisions to PPM difficult to establish in the minds of executives. The problem is not evident until this gap is identified for them.

Few would argue that global corporations and organizations are not driven by notions of creating value through the delivery of innovative products and services to their consumers in an increasingly competitive and complex marketplace (Porter, 1996, Thomas, 1999). Simply put, deploying and implementing strategy, while a complex undertaking, is essentially about the direction

of the organization and its successes, failures and competitive position (Rumelt, Schendel & Teece, 1994). Once an appropriate business strategy has been crafted by determining what will make an organization competitive (Hamel, 1995, Hamel, 1996, Amit, 1993) the major vehicle to execute strategy within these same organizations is to create and manage a strategic project that will help them explore and eventually embed the strategic change into the operational fabric of the organization (Dinsmore, 1998, Verwey, 2002, Norrie & Walker, 2003). This has substantially increased the attention most corporations give to the discipline of project management especially in organizations with a high reliance on information technology. In this instance, the ability to self-manage projects successfully is an important contributor to gaining and sustaining competitive advantage and realizing the execution of strategy.

Therefore, the issue of importance to be addressed is not in the strategic value of project management itself, but in the selection of projects to be managed for strategic accomplishment. This relates specifically to project selection and activation, a step before actual the actual management of the project itself begins. While most corporations appear to currently use financially-driven measures to pick their portfolio of approved projects, this study actually suggests that this many be antithetical to the selection of a strategic portfolio because not all strategic projects will necessarily present higher financial returns, as measured by a traditional business case approach.

Therefore, if organizations moved to selecting projects based on their strategic value (assuming one could measurably link project outcomes to strategic outcomes), then this would suggest the selection of a more potent portfolio of projects aligned to strategy execution. However, this problem is less visible in the private sector because financial returns are often an essential underlying element of corporate strategy anyway, thereby self-justifying current project selection methods to some degree.

Therefore, within the public sector where profit-making is not the essential driver of strategy, it is crucial that a more objective method based on strategy rather than purely financial achievement be developed for the selection of the project portfolio.

2.8 Chapter Summary

This chapter explored the body of knowledge of disciplines related to this study (strategy, project management, finance & portfolio theory, performance management and leadership) that influenced and grounded this study. Each topic area was examined with a view towards relevance for a project management practitioner and the intended scope of this study rather than on being

exhaustive or complete in relation to the subject matter itself. This section is also not intended to define and develop the conceptual framework since this will be done in Chapter 3. The discussion presented here links each of the discipline's current conclusions on the physiology of the problem being studied to ensure a solid foundational understanding of the problem itself and to demonstrate both the presence of and relevance of others' theoretical frameworks that will be referenced elsewhere in the study to support its conclusions.

CHAPTER 3: THE CONCEPTUAL FRAMEWORK

3.1 Chapter Objective

This chapter will describe existing PPM approaches and offer a proposed change that could improve its practical application and strategic outcomes, particularly as it relates to the optimal selection of projects for an organization's portfolio. Specific recommended changes to current approaches include using a balanced strategic scoring model to assess project contribution rather than relying on traditional project-level financial measures. The method also assesses the balance among proposed projects in relation to measurable organizational strategy to ensure that the portfolio is sufficiently robust to accomplish the stated strategy. Neither of these novel approaches to PPM are suggested or described in the literature reviewed by the author to date.

In accordance with the guidelines for a professional doctorate, the descriptions in this chapter remain at the practitioner level. Additional detail is included in the referenced appendices for readers who may want extended descriptions as to the implementation of these changes in practice. The chapter will also link the proposed change to the existing theory and practice to justify the theoretical basis for the change. The chapter will close with a brief description of the organizational business processes and tools that this change may impact and the expected results of applying these ideas in project management practice.

3.2 Description of Existing PPM Methodology and Gaps in Practice

As noted, PPM is a relatively recent methodology (mostly developed in the last 20 years). At first glance, to many practitioners it may seem like a natural extension of multiple project management methods as practiced in a centralized project management office. But the complexity of PPM versus its business benefits as determined by early adopters means that it was not commonly adopted and used in many organizations and, if it was, it required substantial effort to build automated decision support systems to implement (Archer & Ghasemzadeh, 1998). Over the past three years, I have had the chance to ask hundreds of practitioners and academics in various professional settings about their intentions around PPM. Their individual comments support this conclusion and there is often even limited understanding or interest in the implementation of PPM because of a perception that it is too complex for little gain.

In terms of PPM's "fit" within traditional project management thinking, a diagram depicting the hierarchy of implementation of various aspects of accepted PM practice may be helpful as follows:

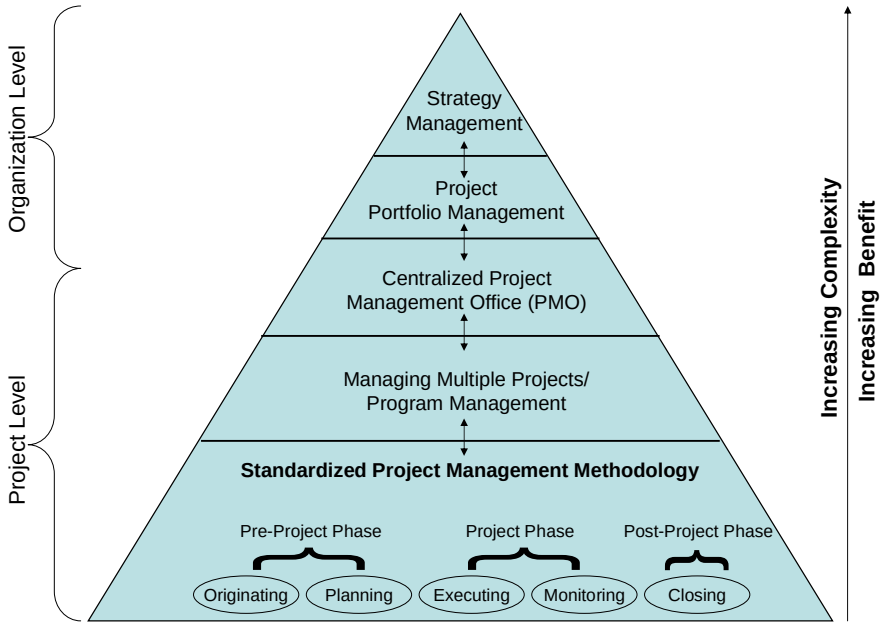


Figure #6: Project Management Hierarchy of Complexity & Benefits

Most project management maturity models such as OPM[3] (PMI, 2003) and others start with an organization's basic ability to have a standardized project management methodology for single projects covering pre-project, project and the post-project phases of the traditional PM process. In order of increasing complexity, we see the normal evolution of project management within an organization as it progresses through beginning to manage multiple projects, then eventually grouping projects (either thematically, divisionally or strategically) into programs. Concurrently, this often leads to the introduction of a centralized PMO. Of note is that there are two things moving in harmony in this diagram: as the complexity of tasks increases so too does the realization of business benefits. However, the responsibility for the proper execution of these capabilities can be thought of as being primarily at the project level, shared jointly with the organization's centralized processes, or residing exclusively at the organization level, as shown on the left had side of the diagram. Generally all five-step maturity models for project management published today recognize and support this same hierarchy (Cusick, 1999).

At the top of the diagram is the organization's strategy management process (formulation, communication and measurement of its progressive execution). Obviously, good strategy is central to success and must drive project conception and execution, thus its place is at the top of the hierarchy. However, it is also recognized as more amorphous and complex than the other tasks noted on the diagram – but getting it right drives the right results.

PPM then becomes the central process that acts as the conduit between the organization's strategy formulation and its execution. Its objectives are project evaluation, prioritization and selection. Management uses the process to determine which projects to pursue and which to discontinue. This makes it an essential ingredient of the successful realization of strategy – and in spite of its complexity, practitioners should not consider it to be "optional" nor can its implementation be left to their discretion.

Yet it is clear that in many organizations, in both the private and public sectors, they either have an under-developed PPM process or treat it as a simple extension of their program management or a centralized PMO capability, as noted previously in Chapter Two (e.g., Archer & Ghasemzadeh, 1999). However, PPM is a distinct process from a PMO capability with its own objectives and should be treated as such within an organization's standardized project management processes and practices.

To understand why this is so, it behoves us to return to early descriptions of PPM methodologies. These efforts initially directed practitioners to have consistent internal scoring models that enabled individual projects to be compared at the point of project selection. The default measures described in the associated literature used traditional project level financial measures. The normal design characteristics of these scoring models put a heavy emphasis on criteria such as internal rates of return (IRR), return on investment (ROI) or traditional project payback calculations as having particular value in assessing which projects should ultimately be selected for the portfolio. Often, collecting, standardizing and managing this data on a project-by-project basis was a significant task which increased the complexity of each individual project proposal significantly. It also meant a significant amount of analytical processing at the central level of the organization – the larger the organization and the number of projects being considered, the larger the task. The literature also suggests more complex methods of project scoring such as those based on capital allocation theories driving even more complexity into the PPM process.

By definition, this approach suggests a clear bias towards those applications where financial efficiency and profitability are valued as the most appropriate selection criteria, potentially limiting or eliminating the applicability of PPM in the public sector or not-for-profit sectors. In fact, the current literature often makes this risk explicit in the definitions of PPM process objectives. For instance, Dye & Pennypacker (1999) state the objectives of a "best practices compliant PPM process" as

- Maximizing the value of the total portfolio
- Balancing the portfolio against available resources

- Linking projects with strategy

Similarly, Cooper (1999) adopts this same position but adds that in the aggregate, the portfolio should accomplish a competitive advantage for the firm, but defines this only in new product terms linked to market share, product acceptance and sales. While these are not objectionable goals in their own right, they are not complete in the my view because they often lack a clear description of what "balancing" the portfolio means (other than against the existing resource pool of the firm) and descriptions of how to "link projects to strategy" are often vague or not sufficiently descriptive to be instructive to a practitioner who wishes to accomplish these objectives in a sound process design.

For instance, Artto et al. (2001) re-state these criteria and attempt to explain each point of the original work. They state: "Decision making on *maximizing the value of the portfolio* can be supported by investment calculations, other financially based methods and scoring models that build desired objectives into a criteria list with different weights of different importance…*Link to strategy* reflects alignment between projects, and the strategic content and resource allocation intended in the strategy of the business. This link can be accomplished by applying strategic reviews/checks, by building the strategic criteria into scoring models, project selection tools and go/kill models…" (p. 9). While this may be correct, from a practitioner's perspective, the specific instructions about how to accomplish these well-intended objectives are missing from the description. Based on the completeness of this work, it would seem to leave most of the mechanics of PPM still subject to substantial individual interpretation.

The approach in the previous citations does <u>not</u> provide an inclusive context because they exclude consideration of organizations where the priority is not on financial returns. Thus it is often left to individual practitioners to wrestle with these issues and determine how to proceed. Therefore, it is little wonder that practitioners recount PPM as complex to implement!

Furthermore, as a result of consulting in the field, I am aware of a few instances in practice where practitioners try to use notions such as "project complexity" or other subjective criterion as a mitigating factor (beyond project financial terms) for selecting the projects in the portfolio. One such methodology is proposed by SPM Group in Toronto, Ontario which I was exposed to in 2003. However, this approach does not consistently work in practice, likely due to the inherent subjectivity of implementing these types of rating/scoring models on a consistent basis across different projects when even scoring projects on financial terms is already seen as a complex task and by executive resistance to purely subjective measurements.

But SPM Group's depiction of their standard PPM process, including reference to the PMI standard project management phases, is still succinct and is presented here with their permission as a typical example of a PPM methodology as practiced:

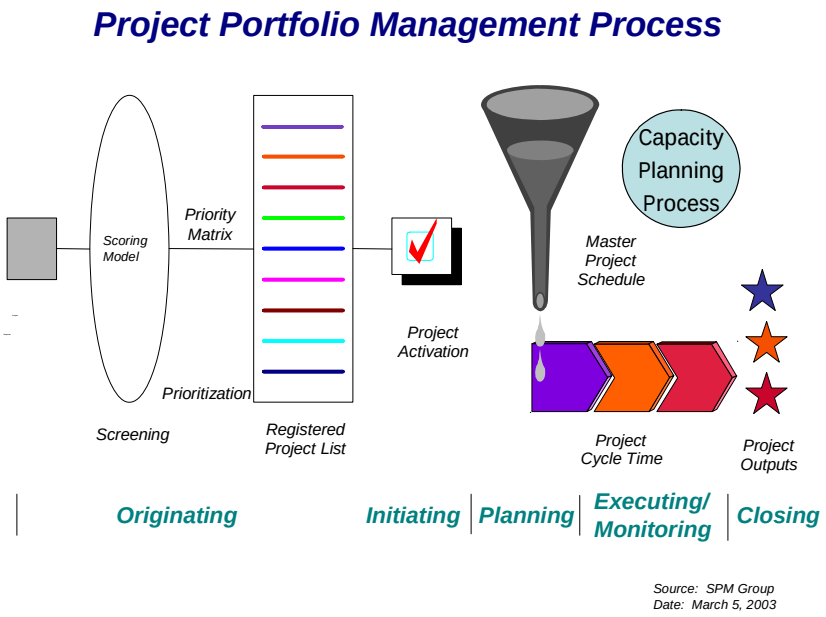


Figure #7: A Representative PPM Process Implementation

The basic model of PPM is simple: as projects are formulated (with an assumption that the organization has a strategy that enables them to formulate projects which are considered necessary and strategic to execute), they are measured relative to each other and to available capacity in order to arrive at a prioritized list of projects to be included in the portfolio. The remainder of the steps in this process diagram (project activation, master project schedule, etc.) are typical steps in any program management or PMO methodology.

More sophisticated models likely include such additional criteria as rating a multitude of risk factors and running probability scenarios in order to adjust anticipated rates of return against potential risk. These are known as "risk adjusted probability models", but again the emphasis on any or all of these variations are still the presumption that higher financial returns are the basis for ultimate project selection, sometimes with the availability of capital or specific project resources as limiting factors (known in practice as a "water line"). It is important to note that all of these PPM scoring models focused on the *project level* criterion in their scoring approach, thus making project selection relative to the other projects. The intended outcome of these or any scoring models is normally a rank order of projects in descending level of return. Sometimes these rankings have a

cut-off based on the imposition of other business factors of concern to the individual organization, such as the availability of capital or urgency in terms of specific a specific project's perceived strategic importance.

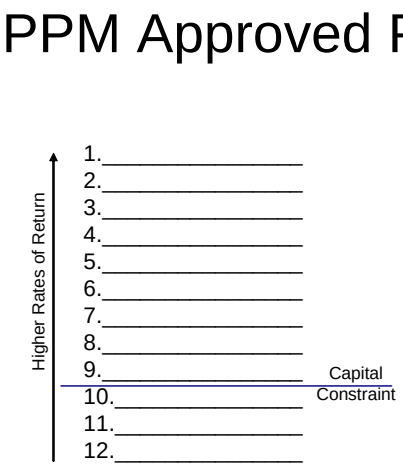


Figure #8: Embedding Strategy into Project Management Practices

It is not a self-evident conclusion that projects, which are financially efficient or affordable, are necessarily the most strategic - Therein lies the elemental logical flaw of current PPM scoring methods. It is not having a process of selecting and focusing a portfolio of prioritized projects that is wrong – it may be the process and criteria for arriving at this selection that is flawed. It should be clear that if the criteria used to select projects are themselves not optimized strategically, then the outcomes of the selected projects will also be inherently sub-optimal.

There is another potential issue that may arise if only project-level financial criteria are considered in more traditional PPM scoring models. The opportunity to be "strategic" is by definition not present if only financial returns are considered (Weill & Broadbent, 1998). If financial returns are the primary sorting criterion then projects are likely to be proposed that will meet that selection criteria and which will therefore be financially efficient. However, this can mean that project proposals that are strategic in other ways are either not likely to be present for consideration or present only to the extent that they are also financially efficient. This can generate a mix of projects that one might consider financially sound. But a portfolio selected this way risks being fundamentally insufficient to accomplish the organization's full range of strategic goals.

However, practitioners may be feeling an increasing level of complexity for what they perceive as limited benefit violating the previously noted project management maturity hierarchy.

To address this, what is required is that the projects selected for implementation can be demonstrated as truly the *most strategic* projects available to the firm at the time they are chosen while still respecting some appropriate level of financial discipline within the selection criteria.

In traditional PPM methodologies, once cannot conclude that this is the case. In fact, other factors (capacity, capital availability or others perhaps) that dictate which projects are ultimately selected may be ultimately defining the firm's ability to execute its strategy. To illustrate this point with consulting clients, I refer to this as *"pseudo strategy"* because this approach to project scoring may appear to be strategic to the executives involved, but it is ultimately not as shown below:

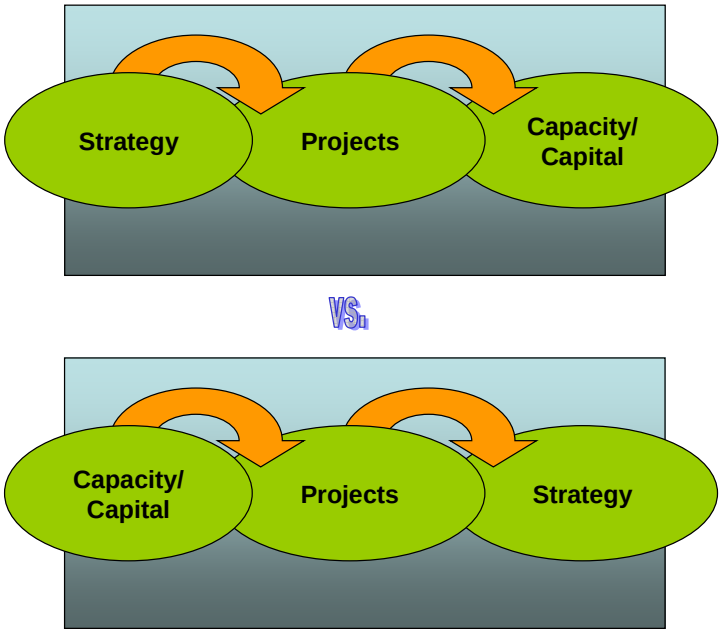


Figure #9: A Comparison of Approaches to Project Prioritization

As can be seen in figure #9, the normal course of events within organizations would be to determine the strategy, then select and approve the projects which support the strategy and then locate and allocate the required capital and capacity to execute the portfolio of projects. However, in the second instance in figure #9, it is possible for organizations to use the available capacity or capital as a constraint on the number or type of projects proposed which then, de facto, influences what the ultimate corporate strategy becomes – referenced as "*pseudo strategy*" above.

To mitigate this, some of my past consulting clients have attempted to put in place *enterprise-level* criteria for strategic projects that would be used ostensibly to "balance" the portfolio of projects selected, away from pure financial efficiency towards a more strategic perspective. However, without a sound and consistent methodology to measure strategic outcomes of projects,

this effort is not likely to be successful and often amounts to the executive team agreeing to fast-track selected projects because they are perceived to be "strategic", without knowledge of whether or not this is the case or if the gaps in strategy that can arise will only become visible after the portfolio is executed. With the speed of business today, this is likely an unacceptably risky approach that suggests there is time to repair strategic gaps after they become visible. The preferred approach is to design an alternate process that will help executive leaders of organizations gain insight into the likelihood that a selected portfolio of projects will actually accomplish their intended strategy *prior to* their selection and execution. To illustrate this more succinctly, a comparative diagram of the current and proposed approaches may be helpful to the reader:

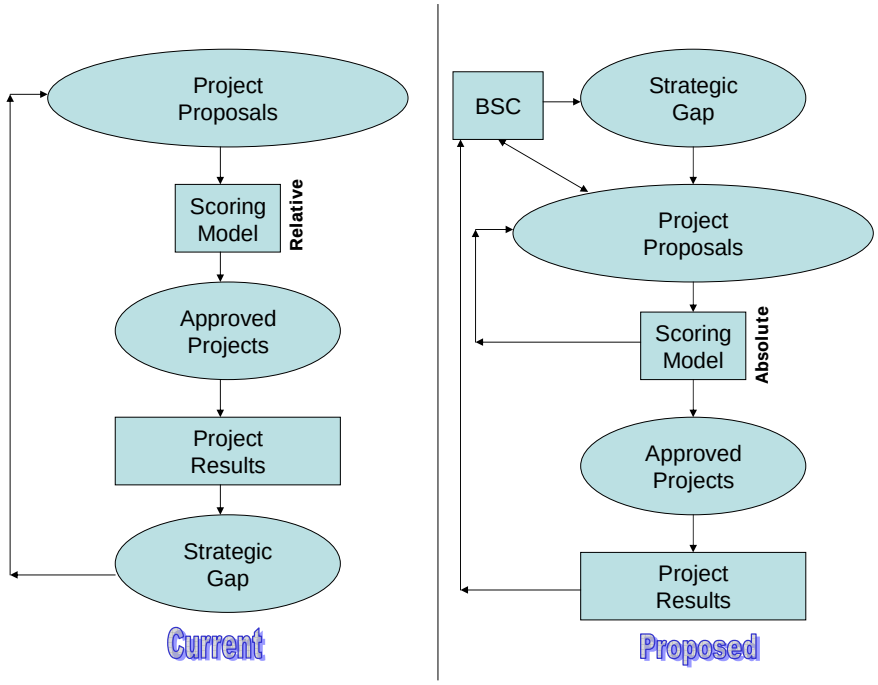


Figure #10: A Comparison of Current & Proposed Approaches to PPM

Current PPM approaches, as reported in the literature (both academic and professional), call for all project proposals created as a result of the firm's strategic planning process to be scored relative to each other (as noted above), normally using financial efficiency as the primary scoring factor. The approved projects then constitute the portfolio that will be managed and executed by the organization to accomplish its strategy. Any strategic gaps which occur in this design will only be visible once the total portfolio is executed and the results are known – this then feeds into future planning cycles where additional new projects to address these gaps can be included in the next round of project proposals. And, the process of project conceptualization likely has less strategic and more financial content as a result of the experience of project selection process – only

projects that are financially efficient are chosen because that is what the method inspires participants to do.

It is also important to note that when the PPM approach noted on the left in the diagram, the organization still selects only its ultimate portfolio of projects in relation to the actual projects presented for scoring (i.e., it assures us that we are potentially picking the best projects among those presented). This current practice will not ensure that the proposed projects will actually accomplish the organization's strategy, if successfully executed. In the seminal work *Translating Corporate Strategy into Project Strategy*, Morris & Jamieson (2004) point out the danger of this kind of approach and urge firms to be more complete when defining and selecting strategic projects. Their conclusions mirror those in this study in some ways. However, the private sector bias of even this thoughtful work limits its applicability when the notion of "balance" or "strategy" does not incorporate both and non-financial optimization in a public sector setting.

Hence, good project management requires a method that effectively measures and defines the desired strategic outcomes in advance so that the portfolio of projects can be pre-validated (rather than post-validated) to ensure that the organization's full strategy can be realized. If it could be accomplished, this would likely fulfil the original intent of portfolio theory and increase the benefits of the proposed methodology to match its complexity.

This is shown in the right side the Figure #7 above, noted as "proposed" methodology. The inherent difference between the current and the proposed PPM methodologies is the strategic gap, which is now pre-identified by ensuring that the organization's full dimensions of strategy are visible in the form of measurable outcomes. To accomplish this, the Balanced Scorecard methodology was applied, with its four fuller dimensions of strategy as a starting point. The firm establishes measurable goals (including three dimensions beyond traditional financial objectives) and plots the gaps between its current and desired levels of performance. This specificity allows practitioners to see, in practical terms, the connection between any individual project and the strategy of the organization in real terms. Furthermore, it is now possible for the organization to seek out and create specific projects which will close these gaps *during* the project conceptualization stage. This suggests that the ultimate portfolio of projects will now be chosen from a fuller and more broadly defined range of possible project proposals (and not just those that are financially efficient). This increases the likelihood that the organization will be able to select and execute a truly strategic portfolio of projects.

Cooper et al., (1998) describe another important element of a sound PPM process as follows: portfolio management should be a dynamic decision-making process whereby a list of active projects in the business is constantly updated and revised. New projects are evaluated, selected and prioritized, existing projects might be accelerated, killed or de-prioritized and resources are allocated or re-allocated to the active projects. The decision-making process is characterized by uncertain and changing information, dynamic opportunities, multiple overlapping goals and fluid strategic considerations.

If we accept this assertion as fundamentally true, then the proposed PPM process is more responsive to this uncertain and changing information because it attempts to make all projects multi-dimensional and measurable in relation not to themselves, but to absolute externally validated strategic performance objectives. Therefore, as often as those are required to change by the naturally dynamic circumstances of strategy formulation, the revised PPM model could accommodate that level of complexity easily by simply determining how the new portfolio mix does or does not accomplish the new strategic objectives in concrete, measurable terms.

Another significant difference between the current and proposed methodologies is the scoring model: it is no longer relative. Rather, the scoring model becomes fixed and generates an absolute determination of the ability of the proposed projects selected to close strategic gaps. If the anticipated benefits of the projects under consideration still leave too large a gap, it is possible, at that point, to iterate and determine other, new projects to address this gap. The possible iterations of this sub-process are, in theory, unlimited or limited only by the available time and the creative ability of the organization to conceive projects that will address the identifiable strategic gaps. Because of this, the proposed approach has a distinct advantage, compared to those existing in practice.

As a result of this new approach, an organization can now manage its performance to a higher level of strategic certainty than would otherwise be possible. Put another way, the recommended change in approach drives the creation of project proposals that *should,* rather than *could,* close current strategic gaps across all four dimensions of the Balanced Score Card (BSC). This enhances the strategic benefits of PPM organizationally and may allow practitioners to position this enhanced benefit with their organization's leaders. This can help off-set any existing doubts, either among themselves or their leaders, about the trade-offs between costs and benefits associated with complex, enterprise-wide business processes like PPM.

Preceding this summary of current PPM practices and its gaps, the thesis will turn to testing the validity of the recommended changes in PPM practices. As such, it is important to move to an examination of the underlying assumptions of the proposed methodology to ensure they are theoretically sound.

3.3 Balanced Performance Measurement & Management

After more than ten years experience with the Balanced Scorecard methodology originally developed by Norton and Kaplan, I can attest to the value of measuring and mapping organization strategy in more concrete terms.

This methodology focuses its efforts on helping organizations to develop a strategy across four standard dimensions/perspectives (financial, customer, process and people) that actually force an organization to ensure it has a measurable, balanced strategy to implement. The notion of balance is important within this framework – a complete strategy must address all four. Traditionally, financial measures (which, although the easiest to identify and deal with, are lagging indicators of what has already happened, not what of may come to pass) were the traditional measure of performance in most organizations. In fact, this mirrors what we see in traditional PPM methodology – the dominance of financial measures as the ultimate success criteria. The BSC requires leaders to think more conceptually and broadly about their definition of organizational strategy and performance measurement. Thus, leaders are challenged to ask themselves basic questions regarding their intended strategy in each of the four areas, as represented in Figure #8 below.

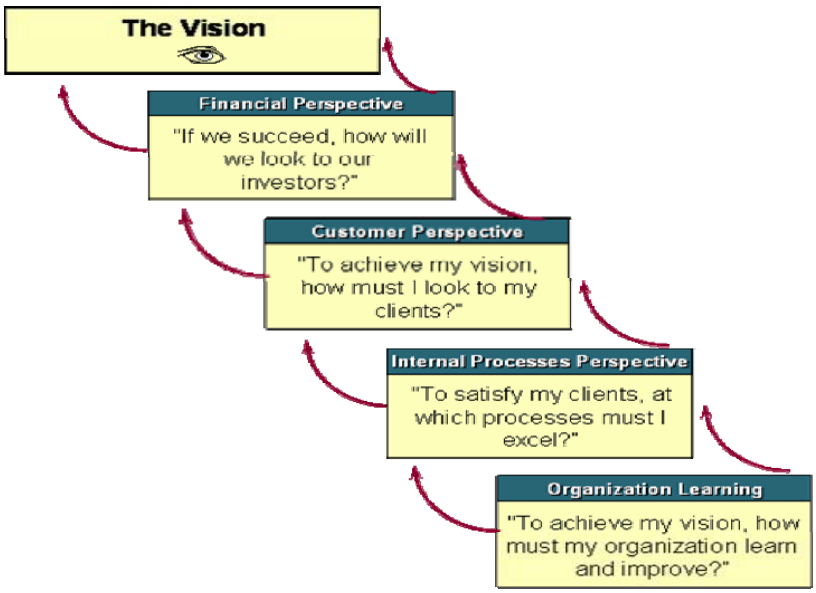


Figure #11: "The Balanced Scorecard Perspectives

This method is generally successful at determining what future activities will likely have the most impact on the organization's strategic objectives and making sure that initiatives and projects exist in sufficient quantity in all four dimensions to accomplish the intended strategy. At the next stage, the strategy is "mapped" with the intent of unlocking the potential of the tangible and intangible assets of the firm (Kaplan & Norton, 1996) to accomplish the most highly strategic tasks that will provide maximum cumulative value. The strategy map makes the steps on the strategic pathway quite clear and helps leaders to identify dependencies and important interactions among the tasks at a high level to which specific measures can be developed and applied. This permits the organization to closely track its strategic accomplishments, acting as a bridge between strategy formulation and execution.

For this reason, the Balanced Scorecard has naturally migrated from the private sector into the public sector (Whittaker, 2002), making it particularly relevant to this study. There are also a number of other academics (e.g., Maltz, Shenhar & Reilly, 2003) who have acknowledged the value of the BSC in relation to measuring corporate performance and, in some cases, have extended the original methodology in new directions.

Those with less knowledge of the BSC in practice may wish to refer to Appendix H which provides a sample training presentation used with one of the case study firms. It highlights information on the BSC and its application in strategy formulation and measurement.

However, as a methodology, it is quite silent on issues related to connecting and integrating the output of the balanced scorecard (strategy map, measures, etc.) with more effective project management practices. In the context of the project management maturity models, it is not clear how an organization using the BSC as a strategy management tool can link it to its PPM methodology as shown in Figure #4 above. Others, including myself, have previously identified this gap (Stewart, 2001; Stewart & Mohamed, 2001; Norrie & Walker, 2004) and many have begun research efforts that may provide solutions to address it. To date, however, the research is generally aimed at the single project level of complexity.

With knowledge of both methodologies, I sought to find a clear way to connect them and to test the value of this combination at the enterprise level.

3.4 Recommendations to Address Deficiencies in Practice

To address the joint deficiencies in both methodologies (the lack of a balanced strategic approach in current PPM scoring models and the lack of an extension into project management methodologies in the Balanced Scorecard approach), one must begin with the end goal. What must the proposed change in methodology accomplish in order to successfully assist organizations to prioritize projects strategically in a consistent and replicable way?

To accomplish this, it would have to be possible to measure and assess the individual strategic contribution of any one project in relation to the organization's intended strategy. This implies a means to measure strategic contribution. If successfully completed by guidelines proposed by Kaplan and Norton, the BSC would likely provide a solid foundation for the measurement of strategy at the enterprise level through the identification of key performance measures in each of the four domains of the BSC (variously described as the four perspectives of Financial, Customer/Markets, Internal Processes/Efficiency and Learning/Innovation/People). For each dimension, one would have mapped specific strategies and associated measures and targets (often referred to as metrics) for these measures. For each quadrant of the BSC, there are now specific, measurable objectives at the enterprise level to accomplish. Properly constructed, the BSC becomes a balanced "picture" of the results of your intended strategy expressed through measures.

In turn, these enterprise-level objectives can now be embedded into an organization's project conceptualization and planning process so that each project specifically ties the deliverables in its justification into specific measurable contributions across each of the four domains. Each project would have a higher or lower level of contribution to each individual domain depending on its make-up. Any individual project could contribute in anywhere from one singular domain to all four depending on its scope and relative impact on the firm. Projects can then be looked at relatively in terms of the strength of contribution in the domains and in absolute terms of overall performance targets established for each domain at the organization level.

Another critical aspect of the methodology is balance – an organization can now look across the four domains to ensure that it has a sufficient portfolio of projects to ensure that its stated, measurable objectives (linked to its strategy) can likely be accomplished with the mix of projects that are being proposed. This eliminates the risk of the organization only picking projects that execute on its financial strategy but not on the other dimensions of its strategy. This is accomplished because in the absence of sufficient projects proposed in any one dimension, it is possible to clearly see this and to create more project proposals focused on any gaps before

deciding on the final mix of projects. This ensures the organization is focussing on the totality of its strategy at the point of project selection – a powerful and more complete approach to this all important task normally performed by the organization's chief executive and the executive team.

To operationalise this in practice, it was important to think of a method that would be relatively simple for both those proposing projects and those selecting projects to make these relative comparisons among projects based on their strategic contribution.

As noted in Appendix E, the tool to accomplish this is a scoring model. In this example, we have used an arbitrary scale with four intermediary points (2, 5, 12, and 25) with each point approximately double the weight of the previous one. Using a non-linear scale was a deliberate choice since our intent is to create discrimination between projects that are visually obvious. The scale itself is unimportant and could be any set of numbers one liked – for instance, I might have just as easily used 10, 25, 50, and 90 or used three points or five points on the scale instead of four. The purpose remains the same – a scale that everyone agrees defines the contribution of projects differently so as to force the decision-makers to discriminate among them.

To avoid creating a false sense of security around the mathematics of the model, these points on the chosen scale were then assigned labels (weak, indirect, direct and very direct) – which are designed to be an expression of how much measurable contribution an individual project makes to the measures associated with each quadrant of the BSC. In my own experience with this tool to date, an important objective is consistency of interpretation. To accomplish this, the full executive team should review all project proposals and their associated ratings at the start to develop a consistent application of the scoring model. One was this can be accomplished is to define the scale and then review the prior year's project proposals and selection decisions retrospectively. This accomplishes two objectives: first the team is doing the exercise in a low risk environment because the decisions have already been made. This eliminates a certain degree of jockeying and politics that are normally associated with trying to gain influence to have one's own projects selected and approved. Second, they are able to develop a consistent and internalized understanding of the definitions of, for instance weak versus indirect, by looking at projects which are generally well understood (because they have already been reviewed and approved). By working with the known initially, and actively developing a joint understanding of the scale and its definitions, when the scoring model is then applied in a subsequent step to new projects and the vested interests and risks associated with the decisions are higher, the confidence to rely on the model has generally already been developed among the executive team.

Since the scale or values of the scoring model are not as important as its consistent application to ensure that selected projects that have a more tangible, direct contribution to the organization's strategy, there is a high degree of latitude in the actual design of the scoring model itself. In the example we are discussing, shown in Figure #12 below, the graph demonstrates this aspect of the methodology by depicting the degree of alignment between the project and the organization's measurable strategy by connecting the size of each project's bubble (based on the labels weak, indirect, direct and very direct each corresponding to a particular circle size). This provides a visual representation of the degree of strategic discrimination among proposed projects.

This modification to more traditional scoring models proposed for PPM implementations accomplishes the incorporation of specific strategic measures (which in any particular organization may be based on the BSC or other measurable *strategic imperatives* of the firm). However, it is the essential element of balance across the many dimensions of strategy (in the case of the BSC there are four) rather than relying only on project-based financial measures that is the breakthrough. This resolves one of the evident gaps in current PPM practice and does so based on valid existing theoretical assumptions by ensuring that the more strategic projects are more likely to be selected.

When considering a public sector context, this change in methodology becomes even more critical in terms of the usefulness of PPM to individual practitioners because project scoring can now accommodate the more complex and non-profit motivated strategic objectives often found in this sector. Using the BSC (or any similar balanced set of performance objectives), leaders can reflect the complexity of strategy found in legislation, government social policies and practices and other factors that often cannot correlate to the simpler profit-based strategies found in the private sector. Since this is the context in which a public sector project manager must establish project priorities, it is essential that any PPM methodology used in this sector be able to accommodate this additional level of complexity.

The shift in practice created by combining the two methodologies enables one to assess an individual project's potential and its overall strategic contribution rather than comparing them relative to each other or on artificial or unintended measure of "project success" (Wells, 1998). At this point, the remaining challenge (which is always present in any PPM methodology) is to adjust the anticipated levels of individual strategic contribution and return for each project against its inherent risk of execution. This suggests that even if a project is highly strategic with high potential returns, if the firm faces potential challenges or known risk in its execution then the returns need to be adjusted downward to reflect that.

This "risk-return balancing" is a normal part of good project management practices anyway and should not vary when implemented within PPM. So the final portfolio of selected projects should be adjusted for the probability of fatal risk factors interfering with successful project execution. The factors of risk that interfere with a project are myriad and will vary from project to project and firm to firm. What is essential is that the risk factors are identified and considered. Again, current PM literature backs up both the necessity of and values of this approach and the intention of this thesis it not to summarize that which is already being practiced but simply to connect the practice to a sound implementation of PPM.

However, there *is* a minor but important adjustment required to accomplish risk-adjusted portfolio selection within the recommended approach herein: it becomes necessary to view EACH individual dimension of the organization's balanced scorecard as its own risk/return matrix. Since project contributions are measured individually in each dimension, we must approach each dimension of the BSC in the same way to ensure we have a sufficient number of projects in each dimension and that they are balanced for risk and return.

Once this was understood during the research, it became clear that any proposed project had to be looked at for its individual contribution to strategy in each of the four dimensions of the BSC (noted above and representationally shown in Appendix E-1). While traditional scoring models simply only compared financial return to risk, the more sophisticated proposed scoring model must now compare strategic contribution across four individual dimensions to risk. The outcome of this change is more complex, but more strategic and dynamic scoring model as shown below (which is actually an artefact from one of the case studies to follow and is explained in more detail in Appendix F):

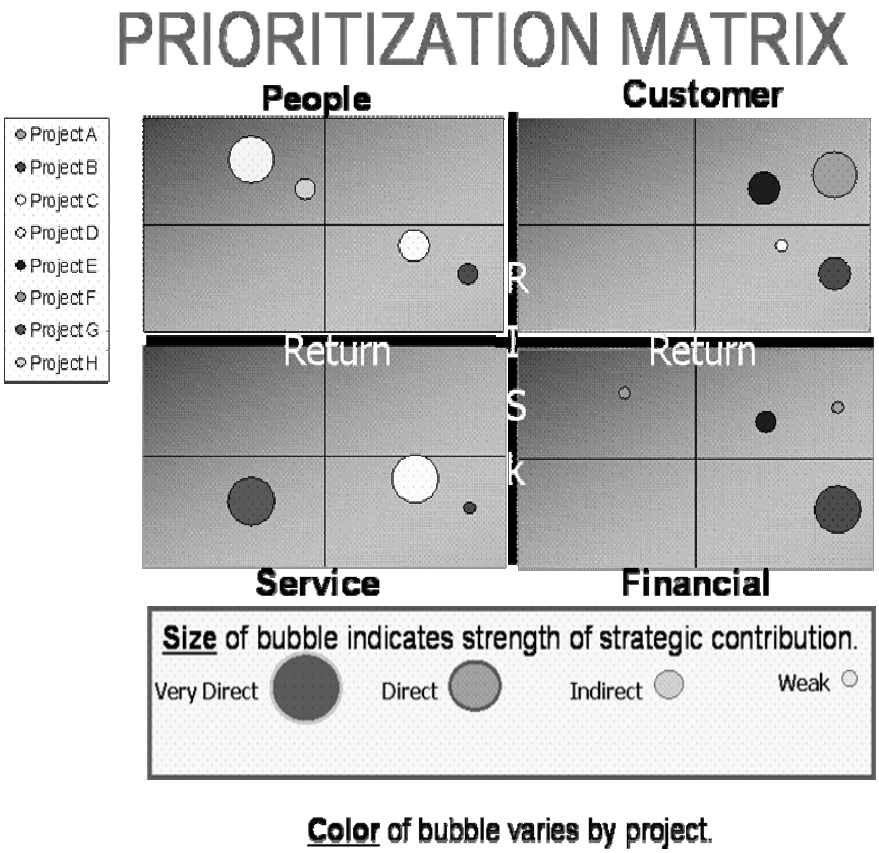


Figure #12: The Proposed Balanced PPM Scoring Model

Each dimension of the total graph represents its own traditional risk/reward matrix, with reward on one axis and risk on the other. The center of the graph represents (0,0) suggesting that as projects move outward from the centre they increase in risk and return – a normal assumption in most instances since rarely is their return without risk. Each project is analysed for its contribution (measured in terms from a very weak or indirect supporting contribution all the way through to a direct or very direct measurable impact) and the size of the circle represents the degree of contribution of the project in each domain. This is determined by comparing the contribution of the individual project outcomes (always in their most measurable terms) to the previously established gap identified during the planning process between current and future performance levels for that domain at the overall enterprise level. Similarly, projects which impact more than one quadrant concurrently (i.e., contribute to building strategic capability in several areas rather than only in one) are more valuable to the organization and should be executed in order of highest priority. The more each project can establish a significant ability to contribute to a lessening of that strategic gap in measurable terms, the more reliable the project is to that quadrant attaining its intended performance level overall.

In relation to risk, the circles are then positioned to determine those projects as having relatively higher or lower assessed risk (depicted by moving outward on the graph from the center as having more assessed risk). This combination allows for trade-off decision making in each quadrant on a project-by-project basis between risk and reward.

The importance of this change in practice cannot be underestimated for its possible contribution to the private sector certainly; but, it is even more significant in the public sector. As previously discussed, the complex multi-stakeholder strategy present in the public sector makes traditional, financially driven project scoring models quite limited in their applicability. To address this imbalance, we must use a method which allows us to measure, for example, outcomes related to the greater social good or achievement of social policy objectives, not just financial terms (e.g., improvements in overall health levels, decreases in waiting lists or treatment lapses, increases in educational success rates, access to cost-effective day care or improvements in the number of commercial patents issued to business, etc). The BSC would allow one to do that.

Furthermore, once the BSC is incorporated into a public sector setting, we can use it to balance strategic outcomes with the costs of program implementation, enforcement and other factors. This balanced view of strategy is imperative in the public sector context where responsibilities cannot be abandoned simply because they are costly. However, where applicable, financial efficiency is still equally valued creating the right balance for application of the methodology in this sector. In addition, it retains the approach of mitigating potential project benefits with possible risks thus retaining an important theoretical foundation of effective PPM methodologies.

By combining these methodologies, we find a way to acknowledge this complexity and we can learn to account for the true value of a project beyond its pure financial impact. By adopting the BSC as a method of measuring any particular part of the public sector's mandate across its four dimensions and attaching relevant measures to each, it finally becomes possible to score the relative strategic value of any project by measuring its potential individual contribution to the overall measures in each of the four dimensions.

But there is another inherent value in this proposed change which is subtle but critically important. If an organization's focus is on strategy execution, and if projects form part of the infrastructure required to execute strategy once it has been formulated, it becomes imperative that the organization ensures that it has a sufficient number of projects in each dimension to actually accomplish its stated goals. This transfers the notion of "balance" from the scorecard

methodology into a project setting demanding that the project portfolio also be similarly balanced. This helps build expected performance levels into the selection of the project portfolio from the outset.

In previous implementations of PPM, since the scoring models involved measuring relative financial performance of one project versus another, the only assurance the chief executive might have had in relation to this question was on the basis of his/her judgment of the approved project list in terms of its ability to deliver on the overall corporate strategy. With the proposed change in methodology, it becomes possible to consistently and practically measure potential strategy achievement in each of the four dimensions. This ensures we can "lock in" the organization's results by identifying projects that, while perhaps less financially efficient, are actually critical to strategy execution in another dimension. This helps mitigate the risk of a imbalance towards short-term financial gains at the expense of long-term strategic capability building.

Leaders can now look across the project portfolio from this enhanced strategic vantage point, and they can more easily determine not only on relatively, but on an enterprise level that sufficient projects are available to actually achieve their organization's strategic agenda. And, if there is a gap, team leaders can identify it in advance and look for projects that would close this strategic gap and include them in the portfolio from the outset, rather than waiting for the project results to be implemented.

This finally enables the executive team to focus the organization's resources on those projects with the highest potential "on-strategy" contribution, the previously elusive fourth constraint of effective enterprise project management practices, as identified in the literature in Chapter Two.

Graphically, this would allow you to create a table of projects to ensure "balance" in the portfolio, as represented in figure #6 below. For example, perhaps the original financially-driven PPM scoring models determined that, from among the many projects proposed by the organization, projects A to E were ranked in order of priority for execution based on rates of return.

However, when you use the proposed strategic scoring model, a very different result becomes apparent. Now project C, which may have only had a middle rank in terms of financial return, becomes the most critical project to focus on because of its high and pervasive strategic contribution to all four dimensions of your strategy. It now moves up in the priority list because of

its potential strategic contribution. Similarly, for the other projects where, for instance Project B was seen as highly financially efficient in the previous model but because its impact is limited to a single strategic portfolio, it moves down in the priority ranking under the new strategic scoring model. A chart like this is also a simple visual verification of the balance in the project portfolio across the four dimensions to ensure a sufficient number of projects exist to accomplish not just financial goals, but all aspects of the organization's strategy.

Registered Project List (Risk/Reward)	Financial	Customer	Process	People
3. Project A	•		•	
4. Project B		•		
1. Project C	•	•	•	•
2. Project D	•	•		
5. Project E				•

Figure #13: Project Priority Differences in Financial versus Strategic Scoring Models

3.5 Anticipated Impact of the Proposed Change in Practice

Adopting this change in methodology removes PPM from the purely financial realm and ensures that organizations do not pick only economically efficient projects. For instance, for projects related to longer-term investments in process or people management effectiveness, there might actually be lower than normal financial scores when these projects are compared to other proposed projects. Does this suggest that an organization should not do them? If the PPM scoring model puts too, much emphasis on internal financial measures derived from the business case then this could be the likely outcome.

By adding the newly constructed strategic dimensions and the notion of balance across all four dimensions of firm performance, project selection outcomes are anticipated to be quite different. It then becomes necessary that any particular project be considered a top priority for resource allocation because of its long-term ability to lift the company's strategic capability over that of its peers. It is anticipated that this will change the nature of how the organization conceives of, documents and proposes projects for approval internally. Concurrently, it is likely to require changes in how the "business case" for any particular project is built and is considered to incorporate the elegance of strategic analysis and trade-off decision-making into the revised PPM scoring model.

When one can clearly define and articulate a strategy in measurable, balanced terms and then incorporate this into the organization's PPM scoring model, it will act as a "strategic filter" which can substantially improve the likelihood that the methodology will successfully aid strategic project selection. To my knowledge, this has never been proposed in the literature in this way. I anticipate that future case studies will further articulate how best to accomplish this outcome in practice (see Archer & Ghasemzadeh, 1999).

Additionally, combining the two approaches offers the organization the opportunity to possess a common language and a common set of measures to determine the scoring of projects. One of the hallmarks of the Balanced Scorecard methodology is its insistence on measuring strategic success at the organization level and then benchmarking this to internal and external performance goals. This same approach benefits PPM by reducing the amount of perceived scorer bias when projects are presented. It is expected that this will have a significant impact on leader behaviour within an organization and affect decision-making practices. It is particularly clear that the traditional discussion during the annual "budget scrum" would likely move away from the question of who proposed a project or who controls the budget to manage these projects and so on. Instead, planning meetings can focus on more essential questions about how best to manage the total resources of the organization to get the best overall strategic results. Although this was always implicit in the original objectives of early PPM methodologies, the validity of this claim was reduced due to the lack of specifics on how to clearly define scoring models that would be linked to strategy. Initial implementations of PPM may have seemed too vague and the scoring approaches too cumbersome for most practitioners to undertake, especially if they foresaw limited benefits in return for this effort.

On the strategic side, the Balanced Scorecard methodology forces executives to clearly state their strategy and to develop specific measures associated with these goals. If an organization is going through this for the first time, it has been noted previously (Kaplan & Norton, 2004) that overall organizational clarity of the mission/vision and strategy of the organization increases at every level.

The project management profession has noted and complained of inconsistencies in corporate strategy and their resulting inability to address this challenge by making direct strategic connections between business vision and project strategy (Christenson & Walker, 2004). Thus, the professional project manager should immediately see the benefits inherent in the integration of these two methods.

3.6 Description of the Enabling Tools for the Proposed Change

Once the basics of these two methodologies are understood individually, they can be easily combined. It requires the development of a normal, project-based scoring model for individual projects that measures their specific levels of financial return, risk, complexity and resource consumption as would normally be done in any project conceptualization. This is fundamentally understood and is part of traditional project management methods.

Secondarily, a new scoring model that translates the organization's strategy and measures across the four dimensions of the Balanced Scorecard is developed into a counter-balancing strategic scoring model — a notably new aspect of PPM. To accomplish this, an organization must be prepared to cogently state its strategic goals in terms of "strategic statements" in each of the four domains of the Balanced Scorecard and to attach strict specifications to what it is prepared to define as a "strategic contribution". As was previously noted with PPM methodologies (Archer & Ghasemzadeh, 1998), this may also require decision support tools to help automate the process. Of course, in practice, this will vary from organization to organization and industry to industry — but it is the principle that is important.

By determining what constitutes its own strategy and how quickly it aspires to realize and execute on the benefits of this strategy, an organization can now articulate clearly to its employees what is required in terms of projects to execute the strategy and achieve the benefits. This provides a new level of insight into the individual project's possible strategic importance and also measures the balance in the portfolio across the organization's stated goals in each of the four areas of its Balanced Scorecard. A sample of an actual strategic scoring model is presented in Appendix E. Of note is that both Appendices D & E are real examples developed during the actual case study work and both are in use today within their respective organizations.

When each of these is developed and implemented appropriately, they can then be combined into a *weighted analysis* that considers both individual relative project performance and the enterprise strategic level concurrently. This is done mathematically and can be graphed to show the results.

Once this is done, trade-off decisions about the actual project portfolio can be undertaken by the executive team with far more confidence than was possible without these modifications to current PPM practices (and most especially project scoring models). And, in a public sector context, it is clear that appropriate project scoring is now possible. Acting with a higher confidence level, leaders can be assured the right projects may be chosen and that scarce resources are properly

focused on those projects with a higher likelihood of success and higher strategic contribution. This meets the test established in the literature for effective capacity and human resource management in project settings (Hendriks, Voeten & Kroep, 1999).

These supporting processes and tools do not address the continual need for the organization to focus on the strength of their individual project management efforts. Since the proposed changes in methodology address only the changes in behaviour and process at the project concept, definition and selection stages, internal multi-project management practices or PMO within the organization remain a challenge. This can be either an opportunity or a threat to the organization's long-term performance.

The final process change to current PPM methodology that is implied by the proposed change is to add deliberate "learning loops" into the scoring models so that, over time, the organization can track its own internal ability and effectiveness at predicting strategic results. Clearly, any future project proposal is only as good its conceivers to continuously improve their accuracy based on assessing past predicted performance to actual results and to investigate where gaps occurred and why. To do this successfully requires that organizations concentrate on managing independent single projects and manage the total project portfolio as a common entity with shared objectives, problems, and challenges (Elton & Roe, 1998). It is the repetitive trends and variances that occur across all projects which likely belie the most insight into the root cause of project failure across the enterprise rather than symptomatically treating each project separately in search of a root cause.

By embarking on continuous improvement cycles across the portfolio, criteria used can be compared to actual results over time to improve the reliability and to enhance performance of both the scoring model itself and the individual accuracy and reliability of project conceptualizations. This ensures that any particular organization avoids the use of a generic scoring model (which would not account for strategic nuances specific to the organization itself) and replaces them with a desire to build and evolve ownership of an internal PPM scoring model over time that is highly-attuned to the organization's own view of its current and future strategy and actual accomplishments. This is in keeping with Artto et al.'s finding that:

> *The methods for project portfolio management presented in case studies all have their strengths and weaknesses and company specific features and thus cannot be directly used by other companies. A company using portfolio management should always create its own models to ensure the right balance of projects for itself. (p. 58)*

Equally true for this study, each individual case study has a particular set of circumstances and a strategy that devolve a unique scoring model. However, the *framework* of how to approach developing a BSC-enabled scoring model remains consistent and is the primary contribution o the study – so while the measures and factors to be considered in each quadrant may vary by organization or firm, the basic approach of the proposed methodology will remain constant, thus making the outcome of this study widely applicable if borne out of practice.

While the potential to further improve the effectiveness of PPM scoring models longitudinally exists by trying to determine generic, consistent models, the completion of this thesis could provide neither the time nor the resources to do so. Remaining within the boundaries of the degree regulations, this study could not test its findings longitudinally.

Beyond the change to the scoring model itself, the rest of the traditional PPM process (such as having a project proposal process, project activation process, and the standard aspects of reporting and controlling multiple projects for spending, risk and status) remain the same. Often this will be accomplished in larger organizations through a PMO. Of course, by implication, the use of strategic measures at the project level enables project tracking and control and risk management processes to be measurable as well and leaders should expect that a project continues to report on its accomplishments not only at the simple project level but at the level of contribution to the organization's overall strategic goals and cumulatively aggregated across all projects.

Simply stated, when aggregated at the enterprise level, the organization should be able to effectively determine if it is "on-strategy" – a question of great concern to organizational leaders who must focus not only on strategy formulation, but also on its ultimate execution. This change to current PPM practices should result in a significant benefit to the organization generally since it provides executive teams with a new level of organizational insight into actual performance rather than anticipated performance. It also provides for an opportunity to pre-emptively determine if the project portfolio will actually accomplish the organization's stated strategy.

3.7 Chapter Summary

This chapter outlined existing PPM methods and practices including discussion of the challenges that exist for practitioners (especially in the public sector) who want to implement PPM in their organizations. A proposed change that combines two current methodologies to address the inherent gaps in current PPM scoring models was described and theoretically justified as being sound. The combination of these two existing methodologies, both already proven in practice, provides the theoretical underpinnings for renewed realization of business benefits from PPM

while simultaneously reducing complexity. It described how a balanced scoring model could be developed and how it might work in practice, including expectations for the leaders' behaviour and business processes or tools required to support the change. It is the actual impact of this proposed change in professional practice that will be explored in the pilot survey and action research case studies to follow.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Chapter Objective

This chapter outlines the origins of the problem (the lack of practitioner understanding of and the ability to implement a strategically-oriented project scoring and selection method) based on my professional experience to date. It will then detail the specifics of the research designs normally practiced in the field with particular emphasis on establishing the rationale for the selected method and the possible limitations (present at the time the research was conducted) in relation to addressing solutions to the aforementioned research questions. It will include a discussion of measures taken to address known limitations to the extent possible, given the nature of the chosen research design, and establish the validity of the approach to draw meaningful conclusions for practicing professionals.

4.2 Origins of Interest in the Problem

The DPM degree is a professional doctorate for those interested in problems arising from the practice of project management rather than its pure conceptual or theoretical. The program design draws on the work of professional educators who suggest adults in mid-career learn best using a reflective method derived from improving their knowledge of theory in relation to current practice (e.g., Schon, 1983). This was further reinforced in the design of the actual program of study by its academic initiator (Walker, 2002).

In a recently emerged discipline or profession such as project management, this seems to be a particularly sound approach to generating new knowledge in the field. It would further be evident that the thesis research completed for such a degree would equally be in accord with the objectives of the program and focus on a practical, professional problem of interest to practitioners using an appropriate research methodology relevant to practitioners. This may be better understood diagrammatically using the model below. It is loosely based on Schon's (1983) theory of how practitioners' learning can be best stimulated in a professional context.

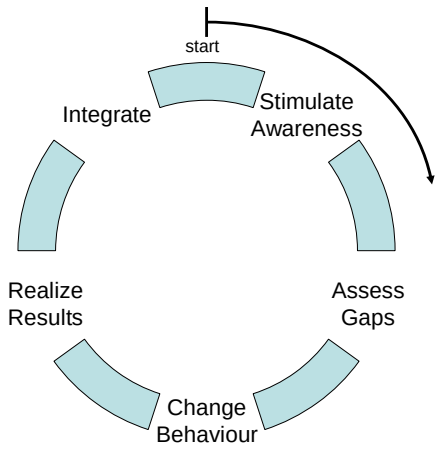


Figure #14: The Reflective Practitioner Model (based on Schon, 1983)

Assumptions of particular importance in this model are that a researcher (or mentor, trainer, coach, etc.) must first successfully stimulate awareness of a problem (often by helping participants recognize its symptoms or impact on them and their organization) and then join with them to assess the gaps between current practice and best practice as the starting point of professional learning.

Once this has been accomplished, the stage is set so that the professionals in question can be shown new ways to act (for instance, by implementing a new system, approach, methodology, etc.) targeted to address the now obvious gaps. If these first two steps are skipped, professionals can be immediately sceptical and resentful of a new approach because its value has not yet been established and the context of *why* the learning is required is unclear. Schon (1983) notes that only if positive outcomes occur as a result of the changed behaviour or intervention, will the professional then understand the intrinsic value of the new behaviour and begin to integrate it into their professional practice. It is at the point where the change in behaviour is actually exhibited in the repertoire of professional behaviour that one can identify that learning has taken place. Without a change in behaviour (i.e., putting ideas into practice), one can assume either that no learning of sufficient impact to change behaviour has taken place, or that the learning was considered too theoretical to apply in practice and was abandoned for its lack of practical value.

As a certified Project Management Professional (PMP) with over ten years of active project management experience in large corporations, the range of possible research problems that might

fit this model was extensive. Throughout the course of both my initial Master's level studies and in completing my course requirements for the DPM, I began to zero-in on the public sector because it is under-served by current research in the field. Specifically, the issue of linking project outcomes to business strategy has been of interest to me for several years and previously published work on this topic is evidence of this academic interest (Norrie & Walker, 2004). However, in completing this initial research in the private sector, a significant gap existed in terms of how to connect projects outcomes to strategy when there is an absence of a dominant underlying assumption such as financial returns to drive decision making. When undertaking work as a consultant in this sector, I also experienced this same problem in a different context when working with public sector organizations where the strategy was often amorphous, convoluted or unclear to those within the organization.

When I began to consider this issue more deeply, the greater importance of the work in this sector became clearer to me. The potential to contribute to the effectiveness of this work was significantly interesting to me and inspired me to sustain my involvement through to the completion of this thesis.

Before addressing this practical problem in a thesis, it is incumbent on the researcher to carefully review the current literature of those who have come before him to determine if a solution to these gaps might exist. While doing this, it became clear that other researchers, while struggling with the same issues, had yet to come to a consensus on how to address the gaps in practice. Even the more recently published work related to project portfolio management does not adequately address the real problems I had encountered. Artto et al. (2001) report: "Project portfolio management is discussed in the literature, but there is a need to investigate the methodological content of PPM from the viewpoint of its application in a business context. Are the scarce resources, especially human capital, allocated to the right projects, namely those that can move the company to a desired direction and produce shareholder value?" (p. 23)

It seemed to me that an "on-strategy envelope" was necessary for current project management practices which could be translated into action through a specific method to select the most strategic projects. This would have helped my public sector clients to deploy their resources and to accomplish better strategic results without focusing purely on financial efficiency, which is inappropriate in their particular organizational circumstances and context. Project management practitioners need to be willing to move beyond the traditional "iron triangle" and make sure that the project work they undertake is truly strategic. This can be depicted in a diagram:

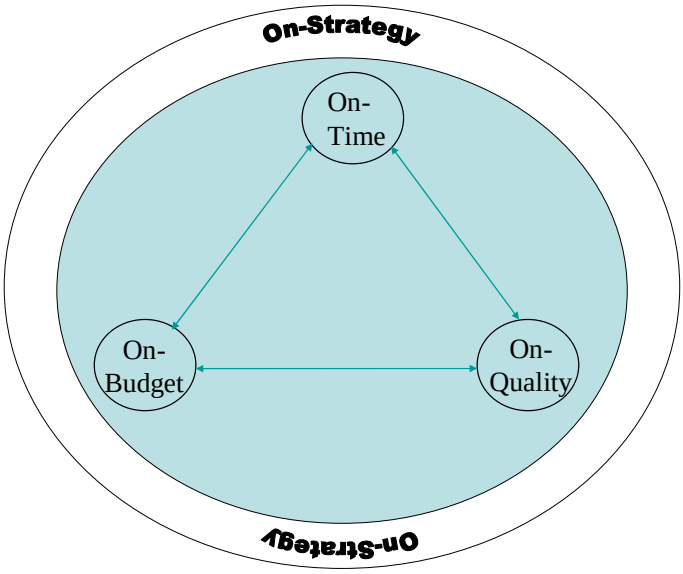


Figure #15: Embedding Strategy into Project Management Practices

Consequently, the journey to creating this body of work arose primarily as the result of my own professional interest in conducting research that would make a lasting contribution to knowledge in the field with a focus on the greater public good. Traditionally, researchers focus on increased financial efficiency or successful project delivery in the private sector. By extending an existing research agenda that I had started some years ago that was positively embraced by the profession (the impact of the balanced scorecard on internal project management practices – see Appendix L for a recent publication on this topic arising from my DPM studies), to an even higher level of professional complexity (the enterprise management level), it would be possible to make a contribution to the professional body of knowledge that would be useful to practitioners.

4.3 Establishing the Possible Range of Research Methods

There is no agreement among PM researchers as to which specific research method is superior to another. In fact, a range of research paradigms can be found in the existing published literature on the topic, all of which could be argued as appropriate or inappropriate based on the philosophy of both the researcher and the research critic. In fact, I used a positivist approach in my published work (see Appendix L). Nonetheless, within the broader IS/IT and PM research communities, efforts have been made to classify various approaches to research in the field and to provide guidance to researchers on the appropriateness of any particular method to the specific questions of study at that time.

Of primary importance is to distinguish between interpretivist and positivist approaches. This distinction was articulated by Fitzgerald and Howcroft (1998) quite clearly, while Klein and Meyers (1999) added the clarification of critical theory in IT research to create three distinct paradigms. To sort out the most appropriate approach, it is important to establish the markers that would guide a researcher to choose one of these approaches.

The positivist approach is valid where testable propositions exist and where categorical, quantifiable variables may be tested based on the ability to infer results to the total population based on findings from a representative sample. The calculations of sample size and the relative reliability of the sample and techniques available to statistically analyse the results are well established. And generally, positivists believe in a universal truth or unifying theory (Neumann, 2000) for which supporting facts in the research await discovery.

The origins of this research approach are in the natural sciences and, initially in the early stages of emergence of the newer social sciences, early efforts were made to apply the positivist approach to this field too. Furthermore, given the natural bias of academic research funding agencies for this type of "reliable" research, it is no surprise that the positivist approach dominates as the most common approach for research (Rademacher, 2001).

Early researchers in our field (Kaplan & Maxwell, 1994; Walsham, 1993) determined that while the positivist approach was not necessarily wrong, it was incomplete as a method because it did not account for the social reality of the individual being observed. As "actors" in a system, it would be imperative to engage in "sense-making" about what people did and why in a systems context (Klein & Myers, 1999). Positivism often focuses on the "what" while leaving the question of "why" aside. The inclusion of this social reality separates interpretivists from positivists and addresses what many social scientists see as the major drawback of the positivist approach. Especially since the practice of project management is so closely linked to the behaviour of individuals in an organizational context, a positivist research approach in the context of PPM will likely yield a narrow and confined conclusion. However, an interpretivist approach, though perceived as potentially more subjective, will provide the more complete conclusion about what phenomenon is actually occurring and why in any particular context.

Thus began a movement away from purely observational research case study methods (Yin 2003; Darke, Shanks & Broadbent 1998) towards "action research". Rather than being a passive observer, the action researcher intervenes or participates directly in order to establish that the planned actions will have a recognizably beneficial effect on the organization (Zuber-Skerrit, 2002).

The case study method, as defined by Yin (2003), is often reserved as a discovery method leading to theory rather than the aim of action research which is to change practices around revised theory.

As academics began to acknowledge the validity of using separate methods for addressing research in a social context, the IS/IT research community identified critical theory as a positive contributor to locating conditions in organizations that prevent people from achieving their full potential (Hirschheim & Klein, 1994; Ngwenyama & Lee, 1997). A particularly fundamental principle of critical theory is that individuals can consciously act to change their circumstances within certain pre-existing parameters (social, political and cultural) that researchers have an obligation to explore and identify in order to contribute to their understanding of behaviours (Myers, 1997). Weick (2001) refers to this as "sense making", a term which suggests including not only the actions of the actor, but their context before a full understanding of the phenomenon under study can be gained. This is a surprisingly much more rigorous research process, but finding the interpretivists too subjective or relative, positivists often find comfort in the more rigorous approach of critical theorists (Neumann, 2000).

So, the remaining debate among researchers in fields related to IS/IT (including project management in these contexts) is the question of research plurality. Is it possible to conduct reliable research that combines the best of these three ideal paradigms? For instance, can one take an action research approach to a problem but combine it with certain aspects of the positivist approach by supplementing findings using questionnaires and statistical analysis? Could one perhaps conduct a document analysis before and after the intervention to look for proof of systemic impact? Or, is one restricted to a single method, based on an assumption of a "best fit" to the research questions at hand?

While far from conclusive, some early results point to a pluralist approach as the most appropriate for the broadest range of research questions and results in this field (Mingers 2001; Myers, 1997). Fundamentally, it is also clear that the selection of a research method is driven by the specific research questions and the underlying nature of the problem to be explored (Trauth, 2001). Therefore, the selection of the action research methodology and its accompanying dissertation are in keeping with current conclusions about the practitioner value of various research approaches and their specific application to IS/IT and project management problems in professional settings.

4.4 Choosing the Research Approach

Given the practice-based nature of this thesis dissertation, what is clear is that the underlying social phenomenon represented in project management decision-making cannot be

thoroughly explored using only a positivist approach. The main rationale for this conclusion is that the dissertation does not attempt to test a specific proposition as a neutral observer of controlled variables. Rather, the significant numbers of uncontrollable or unexplainable variables that arise as a result of the social interactions in the typical organizational setting are of particular interest. In the case of this thesis, the domain of interest is a small sample of organizations where professionals and staff are engaged in some form of advanced project management that includes direct intervention in order to apply a new methodology of interest and to ascertain its impact on business decision-making. This lends itself to a combination of interpretivist and critical theory research approaches.

By definition, the study of a social environment is complex and presents certain challenges to the researcher. For instance, it is not possible to isolate the organization's activity and control it to the point where an experimental model would succeed. It is not possible to structure an experiment without disrupting the normal flow of the organization's activities, nor is it appropriate to do so. This design would not be applicable because we are not interested in exploring natural, scientific phenomena so much as we are interested in social interactions and outcomes. Of note is that many business problems involving questions of executive leadership have often been explored by other researchers using case study observation as the overriding research approach. This problem fits into the class of problems generally associated with this method since it is highly dependent on executive actions and responses and it is any change in these behaviours that generates the results of interest to the study.

Yin (2003) first defined a model for social sciences research in the mid-90's, including management studies, that has since been established as a standard for case study research methodology. This has been further validated by other researchers (Strauss & Corbin, 1998). This method has the benefits of maintaining rigor with regard to what is being studied and the approach the research will use to draw conclusions while acknowledging that the qualitative nature of the research and the types of conclusions drawn will be substantially different from more traditional quantitative methods and experiments. It should be noted that this method does not reflect a lack of quantitative analysis, rather it applies a combination of quantitative and qualitative methods that support conclusions appropriate to sense-making about observed social or systemic phenomenon of interest.

While the researcher is tempted by the proven reliability and validity of this method in some respects, its major flaw is that it is observational rather than interventionist by definition thus defeating the researchers' ability to intervene with a new approach and testing its effectiveness with practitioners. If the researcher is an *observer* of the actors in the system (with the purpose of finding

out what is happening and why) rather than an *actor* himself, then this method can be adopted – but not otherwise.

Since the purpose of this thesis is to intervene within an organizational setting to introduce a new methodology designed to overcome existing deficiencies in existing project management practices, the case study research approach cannot be used.

Previous researchers have noted this constraint and struggled with proposing specific research methods that resist deconstruction of social phenomenon and rather focus on understanding the system as a whole (Reason & Bradbury, 2001; Baskerville, 2001). While the notion of "action research" can go as far back as Lewin and the history of the social sciences, its application in the IS/IT field is more recent (Checkland 1981; Wood-Harper 1985; Baskerville 1999; Mumford 2001; Lee 2001). In fact, Lau (1997) notes that the dramatic increase in the use of this method in the field, despite the persistence of reservations about its more qualitative nature, is generally accepted as valid today. Weick (2001) supports the use of this method as a way of making sense of organizational practices. Zuber-Skerritt (2002) goes into detail about the risks and rewards of being both an actor and an observer in the same system and outlines specific methods to address the roles and responsibilities of the researcher to avoid undue bias. Others stress the importance of eliminating observer bias and the potential for false conclusions by ensuring a focus not on what practitioners say they do but on what they are actually doing (Avison 1999 et al). However, of more importance to the action researcher than eliminating bias (since this is not practically possible with this type of research) is to identify, describe and explain how the bias may be affecting the interpretation of results, positively or negatively.

Another source of validation for the adoption of a more action-oriented research method comes from the Queensland University Action Learning (QUAL) program. Prof. Passfield and his graduate students developed a model for research teams undertaking action research that has since been published by his consulting firm (SCOPE) in the form of a workbook (2002) from which this particularly useful diagrammatic representation of the action research process is represented:

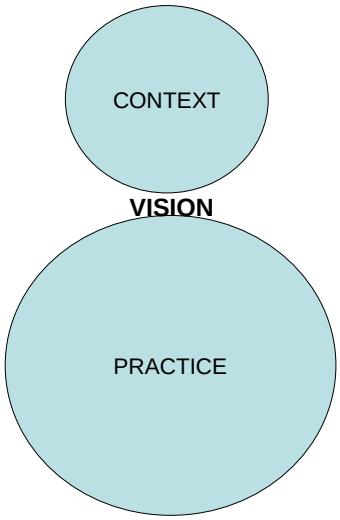


Figure #16: SCOPE Workbook Diagram (Passfield, 2002)

Of particular note is how this research design fits with the particular intricacies of exploring something as complex as project portfolio management within an organization. The researcher must be aware of the strategic context of the organization, its vision, and how to translate that into practice. Furthermore, there is a need to assess current practices in relation to their efficiency and effectiveness in comparison to the planned intervention and to evaluate the outcomes in measurable terms. All of these essential components of effective action learning research can be found in this design.

As a practitioner myself, I am persuaded by the extensive practical application of this research design with positive outcomes in Australia, South Africa, Austria, Germany, England, Hong Kong and Singapore (Zuber-Skerritt, 2002) thus supporting the value of the action research approach for studying practitioner-related problems in a professional context.

Therefore, based on the nature of the research problem and a sustained interest in intervening and testing new PPM methods, a research method combining theory development, methodology development and testing is the most appropriate choice to effectively address the proposed research questions.

In addition, my own professional experience leads me to believe that a problem exists in current practice and that it needs to be explored using a framework grounded in critical theory and action research that will generate possible practical solutions to the problem.

4.5 The Action Research Method

While the specifics of the method will be reported subsequently in each supporting case study, a general discussion of the action research methods specified in the literature is useful to demonstrate the validity of the approach. Of primary importance in any research is a systematic approach that helps define and contain possible bias, particularly if the researcher is scheduled to intervene and will attempt to isolate a "before and after" conclusion that would be repeatable and reliable. Susman and Evered (1978) specify an initial five-stage process that they refer to as the "client-system infrastructure". The five stages are:

1) Diagnosing (identifying the problem to be addressed)
2) Action Planning (determining how the problem can be solved)
3) Action Taking (intervening in an organizational setting)
4) Evaluating (for determination of effect)
5) Specifying Learning (developing or modifying theory)

A common criticism of this long-standing approach to action research is that it fails to distinguish between action and observation cycles and was imprecise in allowing the researcher to determine which actions result in which effect (McKay & Marshall, 2001; Avison, 1999). While this criticism is valid, it is endemic to the nature of the phenomenon under study and so is not important enough to invalidate the method completely but rather to instil precision in the research by being precise about when research actions are designed to solve the problem within the organization versus being undertaken to create opportunities for knowledge acquisition. Avison et al (1999) sum this up in saying:

> "Researchers should be explicit about their approach, clarifying their research aim, theory and method at the outset and all the way through its application, as well as at the time of its publication. The importance of being explicit about the research method is as true for actions research as it si for any other research approach. If researchers are not explicit in following the tenets of action research when working in real-life situations, their work might be better described as consulting" (p.96)

Essentially, the firm conclusion is that good action research must combine close observation with precise, pre-planned actions that have been mutually agreed between the subject (the client organization) and the researcher to explore a specific set of questions or problems.

Zuber-Skerritt (2002) provides a generic model for action learning and action research (ALAR) which is slightly more precise than the above-noted model in its directions of the steps to be taken. A reproduction of Zuber-Skerrit's diagram can be seen in Figure #4.

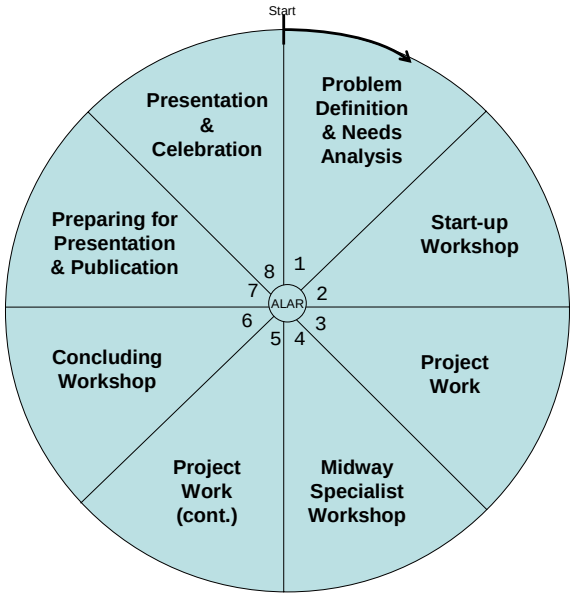


Figure #17: A Generic ALAR Model (from Zuber-Skerritt, 2002, p. 144)

The work undertaken for this case study closely follows this model except for step #4 which is modified from the midway intervention of specialists and is oriented towards an executive team's dry-run of the PPM model. In addition, the word "presentation" was loosely interpreted in the above diagram to include "communication and implementation" of the pilot concepts organization-wide – which fulfils Zuber-Skerritt's requirements of externally validating the project team's work in a recognizable public forum. Other than this, the Zuber-Skerritt model is an excellent representation of how the project work of this case study was actually completed.

To address the issue of direct researcher intervention, Baskerville (2001) states that the research environment should include clear agreements relating to intellectual property, resource provisions, timelines, reporting and overall aims of the project so as to clarify these boundaries ahead of the research taking place. As the reader will see in the subsequent case studies, this suggestion was closely followed and these agreements were in place at the time the action research was conducted for this study.

Following the recommendation of Checkland and Holwell (1998), the declared theoretical position of the researcher before beginning each case study was to determine if current organizational practices and processes made use of existing PPM methodologies. The assumption was that scant evidence of use would be found because of the lack of clarity in the current literature about specifics regarding how to implement this methodology in an organizational context, and more particularly in the not-for-profit or public sector setting. The intention of the researcher was to ascertain if the proposed scoring model, based on the existing theoretical foundation of the balanced scorecard, could repair one aspect of this deficiency in practice. Therefore, the action planning in all cases was a pre-determined intervention to test the validity of a proposed new methodology within the context of existing theoretical frameworks.

4.6 Expectations

Business is a complex, adaptive system (Senge, 1990). This implies it is not usually possible to dissect the system to the point where strict conclusions about its future behaviour can be stated based on indirect or direct observation and validation of its past systematic responses. In fact, since business is performed by humans, any business organization both benefits from and has the disadvantages of inherent human emotional and intellectual responses. While the ability to reason and to choose our response separates us from other animals, it also presents limitations on the predictability of human response. This suggests that the research should then be limited to advancing the knowledge of matters that cause attractions within the system to those processes, models and tools that can positively impact outcomes.

However, it would be a false conclusion to suggest that adopting the methods on this basis would absolutely lead to these results in every organization. There will clearly be situations where the unexpected or unexplained will interfere with the intended outcome and the system may not react as one would predict. Given that the number of possible intervening factors is substantial, the expectation of the researcher ought not to be to achieve perfect implementations and outcomes within every organization in which modified methods are tried.

Rather, if the candidate organizations for the case study are reasonably well chosen (sub-representative at some level of the typical organization within the larger population) then it is reasonable that if the process, models and tools defined improve outcomes for that organization then there is merit in the study of this conclusion as it may relate to other organizations. It is left to the judgment of the individual organization to determine the degree to which the results of the case studies herein are appropriate to their own circumstances.

So, while it is not possible to draw predictive conclusions about the future, it is often possible in the social sciences to conclude what is not working currently with more precision and definition. This research is therefore expected to define and explore what is clearly not working in current models of project portfolio management within the public sector and to postulate as to why that may be. This represents in itself a significant contribution to the field because defining what is not working is often valuable and leads actors within the system to draw conclusions about what could be changed to improve future organizational outcomes as a result of identifying deficiencies in current practices.

4.7 Limitations

A limitation of this type of research is that is cannot be generalized to the point where a predictable and stable model can have "all the answers". Optimally, action research can generate some indicative answers in particular settings which may be generalized in limited ways. In many instances, this limitation is addressed by broadening the sample to include very large numbers of representative organizations; however, this method is flawed, too. If we accept the definition of business as a complex, adaptive system, then is becomes clear that there is no inherent systemic stability that will produce a perfectly replicable model of response no matter how large the sample (Weick, 2001). Hence this is an inherent limitation resulting from the phenomenon being observed and is not particular to the methodology of this study or the scale of its implementation. Ever larger sample sizes would also not likely change or improve the outcome or conclusions of the study to any degree.

There are, of course, limitations of bias in any study simply as a result of the beliefs and attitudes of the researcher. In a professional doctorate, this is perhaps further complicated by the expectation of action-research which is meant to draw on the expertise and professional experiences of the researcher through his or her direction intervention with the system being studied. Since I am exploring a topic of direct personal professional interest, it is incumbent on me to be aware of potential sources of personal bias in the research while not excluding valuable personal experience in the interpretation of the results. This is a delicate balance.

While the use of blind and double blind surveys and interviews can help with this limitation, we all arrive at any research with some degree of natural bias that is inescapably linked to the reporting of their observations. In this instance, efforts have been made to attempt to limit the intrusion of bias as much as possible given the study design. For instance, the researcher asked professional colleagues to review the work in progress to validate conclusions and attempt to eliminate personal bias or claims based strictly on experience. In the case of interviews, the subjects were chosen by the candidate firm and not by the researcher to avoid any bias selection of

interviewees and to provide a balanced view of the results. Nonetheless, it would be unfair not to note this as limiting factor of the study in spite of specific efforts to avoid or eliminate bias.

It should be made clear that even if this fundamental problem is solved, there is no guarantee that PPM will then be successful within any particular organization. There may be additional challenges when implementing PPM with a public sector (or even private sector) culture or a set of organizational values that are incongruous with effective project management practices. This would impede project success independent of any effort to improve current methodologies in practice.

Since PPM would rely on having effective project management practices in place to succeed, the absence of these capabilities will impair the effectiveness of the proposed change in methodology that precedes it and the PPM scoring model will not work successfully. While this could not be attempted in the first study, it might be possible in future research if this methodology gains acceptance to further validate its impact on strategic outcomes by comparing improvements with an organization's current level of project management maturity using established models that currently exist to measure this (SOURCES OPM3, etc.). This would enable a researcher to determine the level of sufficiency in an organization's current project management maturity as a starting point before measuring the impact (or lack thereof) of implementing the revised PPM scoring model.

The issue of cultural barriers and discontinuous organization values is another limitation and this has been identified and studied previously as a challenge within organizations. More recently, researchers have begun to assess its impact in a project context (Yukl, 1998) primarily from a social-psychological perspective. Given that the symptoms and causes of this kind of executive discord at the corporate level are generally understood and are visible, and solutions exist for organizations to address this themselves, it was determined that this issue was not a limitation to this study and could be dealt with should it arise.

There is another limitation for organizations relying on this type of research. Frequently, if proper attention is not paid to a complete transfer of knowledge from the researcher to the organization and between participants, a knowledge management gap may arise. It is important, once completed, for the changes in methodology to be firmly rooted in the organization's practices and for executives to nurture this change continually. Otherwise, it risks becoming a temporary intervention rather than a sustained change in organizational behaviour and practices. There has been an increasing interest in both the literature and in practice about the potential value of managing knowledge in the enterprise more strategically (Hansen et al, 1999; Nonaka & Takeuchi,

1995; Davenport, 1997; Ruggles, 1998; Senge, 1990) as a result of this kind of issue. Since value creation is now known to arise from not only physical and financial assets, but also less tangible but important human, organization and social assets, most managers now believe that effective knowledge management practices can also be an important contributor to competitive advantage (Stewart, 1997; Teece, 1998; Pfeffer, & Sutton, 2000).

If unaddressed, this gap can impair the potential value of any changes in methodology or professional practice as contemplated in this study. An inconsistent application of learning results in the perpetuation of the same mistakes and defeats potential organizational learning about new ways of achieving strategic outcomes. Therefore, an additional benefit of any implementation of PPM should be to identify a systematic way of addressing internal organizational learning through the application of knowledge management techniques that help guide an organization determine which project management practices work in addition to tracking individual project status.

To address this potential limitation, and as noted in the discussion section of each case study to follow, specific measures were taken to ensure that this gap in knowledge transfer would not arise in the candidate organizations. Specifically, there was an effort to include learning loops in the revised process designs and proactive steps were taken to manage the new knowledge being created within the organization about effective project management practices to address this.

4.8 Ethical Issues

Any researcher must be concerned with ethics and the ethical application of research methods. Ensuring that this research met ethical standards in both design and practice was a paramount consideration. In terms of design, the approach was validated by the Ethics Committee of RMIT (see Appendix M) as being in compliance with current standards of ethical practice in research prior to any of the actual research being conducted. The design clearly spells out the importance of ensuring that informed consent was in place for each participant and that participants were aware that their participation in any questionnaire or interview was voluntary and could be declined without consequence. This was accomplished both by including specific instructions to this effect on questionnaires and verbally during the administration of questionnaires and interviews.

A second element of ethical compliance in this research was transparency. The client organizations freely informed employees of the fact that a research study was underway and that my presence was specific to that intent. Invitations to discuss any issues that may arise during the research were made to ensure that employees felt free to express concerns or to identify potential

conflicts (ethical or otherwise). To the best of my knowledge, no issues were raised during the research process.

4.9 Research Relevance

Of primary concern to me is that the findings of this study demonstrate relevance to professional practice. This requires as a starting point that the research itself be rigorous (that it follow generally accepted research practices as noted above) and reliable (dependable, repeatable outcomes). If these first two criteria can be accomplished, there is potential for the research findings to be relevant (actually usable by practitioners) but being rigorous alone is no guarantee of this outcome.

The debate about whether research can be both rigorous and relevant is longstanding in the academic community and, particularly in the IS/IT field, has been debated intentionally in recent years (Lee, 1999; Gray 2001). The emerging conclusion (Benbasat and Zmud, 1999) is that it is possible to accomplish both of these objectives simultaneously so long as the product of the research provides implementable suggestions and acts as a stimulus for action in a particular area. This is the primary aim of this dissertation and the action research approach was chosen with this ultimate outcome in mind.

Lyytinen (1999) provides a further refinement of the concept of relevancy in systems research by suggesting that research needs not only to be accessible to practitioners, but must also produce a long-term change in behaviour. This is particularly important in a project management setting where individual behaviour has such a substantial impact on project outcomes. Optimized decision-making in a project context requires significant amounts of knowledge among project participants of the range of alternatives that could apply; therefore, a potential definition of "relevant research" would be to expand the range of known possible options available to a practitioner facing a similar set of circumstances in their own organizational setting. It is believed that this dissertation would meet this test and that practitioners could locate themselves in these case studies and extract relevant findings useful in their own organizational contexts.

4.10 Chapter Summary

My research problem resulted out of my professional experiences and interests. This fits with the definition of a professional doctorate and the design of the DPM program itself where the contribution to knowledge is suppose to be relevant to practitioners. The specific research approach for this study is drawn from established social sciences methods including the action research approach as defined by Susman and Evered (1978) in the Administrative Science

Quarterly. It was deemed optimal for this research setting because the problem of interest occurs in an active organizational context and must therefore be explored using an action-research method that can test the effectiveness of new methods in existing theoretical contexts. While the chosen methodology has some limitations (specifically related to replication, bias and knowledge transfer), this is overwhelmed by the need to explore solutions to real problems in a professional setting and to address to the extent possible in the research design any risk of bias

CHAPTER 5: AN INITIAL PILOT STUDY

5.1 Chapter Objective

The purpose of this chapter is to explore the existing prevalence and relevance of PPM methodologies in practice. In this chapter, the results of an early pilot study, undertaken as part of the early exploratory stages of this thesis in partnership with the Conference Board of Canada, are presented. The objective of the study was to validate the presence or absence of PPM practices in general and to ascertain if the described problem (the lack of practitioner understanding of and ability to implement a strategically-oriented project scoring and selection method) exists more broadly in practice. Also, in keeping with the objectives of a professional doctorate, an objective of this study is to ensure that the potential knowledge generated by additional research in this area would be relevant in practice. This chapter will summarize the findings from this initial pilot study to provide the reader with additional insights into the origins and scope of the research problem and to provide context about current levels of knowledge of PPM within the profession.

5.2 Purpose of the Pilot Study

A pilot study was undertaken in 2002 to draw conclusions about the existing prevalence and relevance of PPM methodologies as currently practiced and to explore the depth of the research problem in real-time professional practice. The Conference Board of Canada is a not-for-profit "think tank" that aspires to bring together business and government leaders, academics, independent professionals and civil servants to explore topics of mutual interest related to the strength of the Canadian economy and national competitiveness. Project management is one of their focus areas and I was a standing member of this conference panel at that time. More information on the Conference Board of Canada can be found at www.conferenceboard.ca.

The objective of this research conference was to explore emerging best practices in project management, including PPM. One of the primary issues was to determine the nature of current PPM practices in the profession. Primarily, it was a descriptive study in nature. Since the research was done jointly with the Conference Board, I had only limited control over the content of the questionnaire since it was designed and implemented by the entire conference committee. However, because the study included a broad range of both private and public sector respondents, it was relevant to draw conclusions some early conclusions about my emerging research work in the PPM area.

Clearly, the state of existing professional practices was an important question and an essential baseline for my own particular study and knowledge of current practices helps to ensure the integrity of any conclusions drawn in later action research efforts. The pilot study provided crucial professional context which may be of interest to critical theorists and which helped me define the problem more thoroughly before intervening to address the possible gaps it uncovered. It also validated the research effort as relevant – an important element of a professional doctorate.

As a pilot study, the purpose was not to define the problem on a global scale or to be statistically reliable in relation to the total population of global project managers. Rather, it was to establish a *prima facie case* that the problem presented in the thesis exists in practice, thus validating the contribution to knowledge that this research could offer to project management practices if undertaken in future.

The pilot survey was conducted using an on-line tool administered in November, 2002 to current project management practitioners/professionals from across Canada. This industry survey investigated this group's application of current PPM practices. A copy of the full text of this survey is included in Appendix C. The data belonged to the Conference Board of Canada and is presented herein with their permission.

Anecdotally, I had surmised that many practitioners find current approaches to portfolio project management to be inaccessible or impractical. Many find the work involved in implementing PPM as they understand it does not generate substantial value for them or their organizations. Among Project Management Professionals (PMP's) attending local PMI chapter meetings, workshops, annual conferences and related PM events over the period 1999 - 2003, I observed more theoretical than practical interest in PPM among my colleagues. Little seemed available in the way of practical methodology that would enable a project manager to deal with the substantive issue of strategic ranking or scoring of projects, other than by using risk-adjusted financial returns as the benchmark.

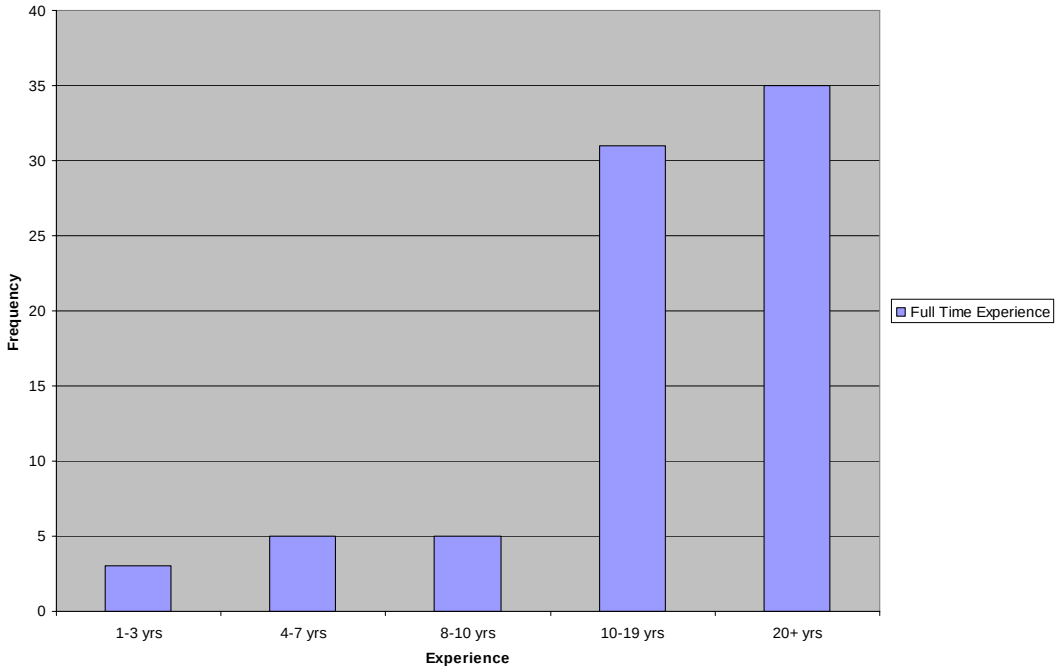
This led to a suspicion that current PPM methodologies may not be serving organizations well (IF they were even in use at all). Apparently, the knowledge gap was pretty wide among practitioners, even among my most experienced project management colleagues. It became clear that if this pattern exists, there is a need to correct this deficiency in practice through a useful PPM methodology that has the potential to contribute to the knowledge in the field and to professional practice. Hence, this was the impetus for the pilot study.

5.3 Results – Survey Demographics

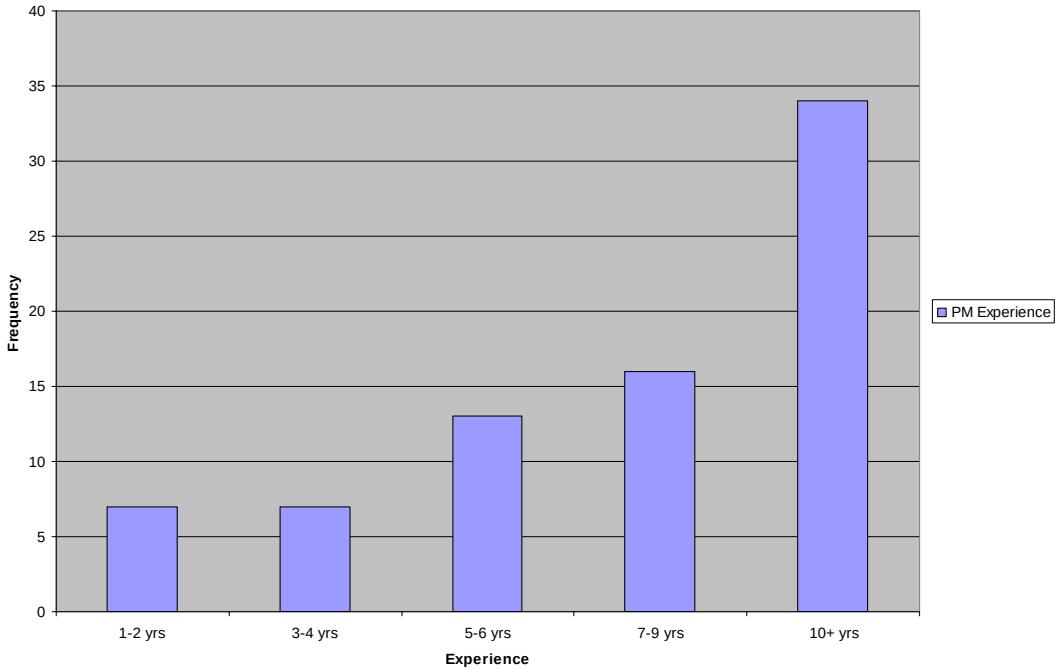
The demographic of this survey covered the entire Canadian geography with most provinces represented. The survey was administered on-line in November, 2002 among those registered to attend the Project Management professional conference scheduled to follow in December, 2002. Disclosure to participants of its subsequent use in my thesis was included in the solicitation to participate. E-mails were sent to all registered participants for an upcoming Conference Board of Canada Project Management event; held annually in December in Toronto where I was scheduled as a keynote presenter with research access to the audience as a result. Therefore, in addition to the survey, there was the opportunity to make a presentation on the results and to engage the audience in the topic and gain immediate feedback on the results (see below).

The final sample included 80 pre-qualified respondents from a total registered participant list of 114 – an excellent response rate. Nonetheless, it is clear that a sample of convenience like this, by implication, cannot be relied upon to be statistically representative of the total population of project managers in Canada. However, when considering the basic demographics of this sample qualitatively, it seems sufficient for drawing exploratory conclusions about project management practices for the purposes of a defining future case study research. For instance, respondents were generally quite experienced regarding their number of full-time work years (see below) and in addition to full-time work experience, the survey also confirmed significant years of direct project management experience. On this dimension, the respondents are an experienced professional cohort, as shown below with a majority of respondents having more than 10+ years of direct project management experience:

Pilot Study Table #1 – Years of Full Time Work Experience



Pilot Study Table #2 – Years of Full Time Project Management Experience



As seen in tables #1 and #2, respondents to this pilot study are generally experienced professionals and project managers with (n=34) of them having more than 10 years of industry experience. This has another interesting implication – given that this is an extraordinarily well-

qualified professional sample, one would expect that they would have likely been exposed to or be using existing PPM methodologies.

Additionally, 61% (*n*=49 of 80 respondents) reported themselves to be PMI certified as Project Management Professionals. Again by inference mainly, this may speak to the reliability of this audience to comment authoritatively and insightfully on professional practices in project management given how many have sought and obtained a professional designation in the field. However, it should be noted that designation status data were not validated externally with PMI and cannot be relied upon; thus, the data must be treated as self-report only.

Similarly, the self-reported titles of the respondents varied but included at least one entry in all of the following categories: President, Principal, General Counsel, CIO, SVP, EVP, VP, AVP, Director, Senior Manager, Manager, Project Administrator, Project Manager, Project Leader, Manager, and Consultant.

The survey did not specifically collect information on the type of organization in which (private versus public sector) the respondents were working; however, both sectors were represented at the conference based on subsequent conference registration data. Conference organizers estimated that almost one third of the audience was from the public sector.

Geographically, more respondents were from Ontario (n = 19/80 = 23%) than any other province; however, there were at least one or more respondents from every province in Canada, except Newfoundland and the territories. Since no attempt was made to ensure the survey was representative (because it was a sample of convenience), no attempt was made to confirm geographic dispersion or representative nature of multiple response by region based on population. Multiple responses were received from all of the larger provinces (Ontario, British Columbia, Alberta and Quebec) and these four provinces represent well over 50% of the respondents to the survey (*n=61)* as well as the most populous regions of the country. The study adequately represents geographic diversity among the respondents which ensures that the problem being explored is not geographically centred on a particular area of the country.

The pilot study would seem to represent a senior group of informed project management professionals from across Canada. So, one might assume that if any group was likely to be using PPM as it is articulated in the literature of the profession today, this would be the group. And, a failure by this group to use the methodology might suggest that there are barriers or gaps in practice

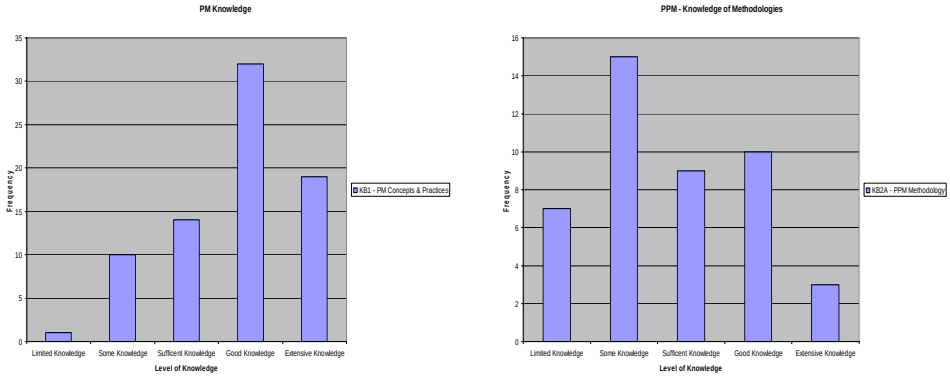
which prevent it from being successfully deployed, the root causes of and solutions to such obstacles would require additional future research.

5.4 Results – PM versus PPM Knowledge Levels

Most respondents noted a significant knowledge of project management, but significantly fewer respondents reported accompanying or even similar in-depth knowledge of PPM. The contrast here is notable and may be partially illuminated by looking at some of the results:

- Of respondents with PPM knowledge (47.5%), virtually all report it to have a high complexity
- 40 respondents (50%) report having no knowledge of PPM despite having high awareness and experience with PM and 47 (59%) have no PPM process in place within their organizations today
- 96% of respondents reported they "need to learn more…" about PPM
- Of those respondents who are using PPM, there was only limited endorsement of the process as being effective and most reported a neutral to slightly negative perception overall of the methodology

These results are most easily compared using a side-by-side table demonstrating the relative difference in reported knowledge levels between project management and portfolio project management methodologies. See tables below.



Pilot Study Table #3 – Comparison of PM and PPM Knowledge Levels

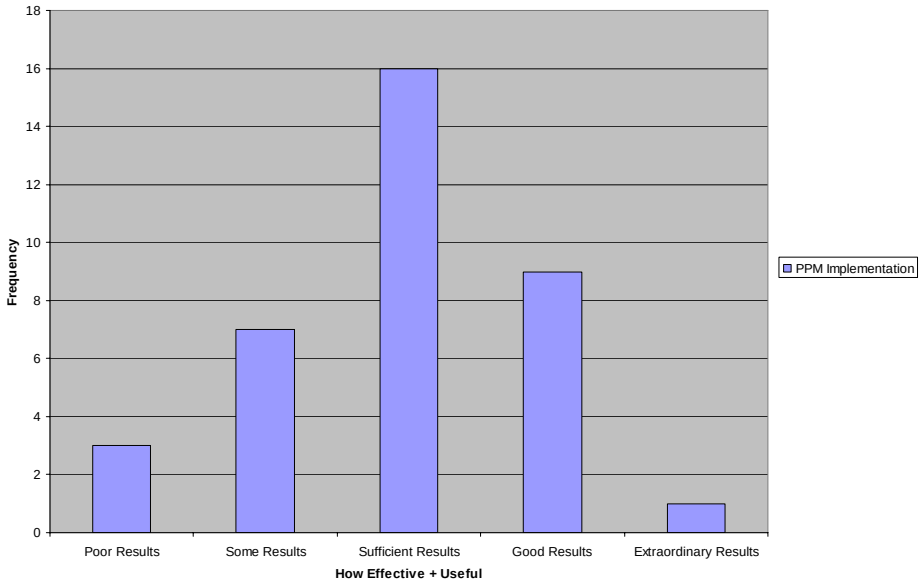
The shape of these two graphs (which have the same scale) tells the story descriptively and completely: respondents self-report considerable knowledge about project management practices, but not a correspondingly high knowledge of PPM practices. It seems this has something to do with the relatively recent nature of these advances. However, this survey was not intended to seek

the cause for the responses, it only verifies that, as previously believed, knowledge of PPM practices is low in the profession.

5.5 Results – Application of PPM and Its Benefits

When we look at the responses of those who had attempted to put PPM into practice, there is a mixed degree of satisfaction with the results of their efforts. Most report neutral to negative outcomes which confirms an initial view that there may be issues present in the current methodology when applied in practice. However, some professionals reported good results, but the pilot study was not sufficient to determine why this gap exists and, in the future, this may be part of a more detailed research study.

Pilot Study Table #4 – Results of PPM Implementations

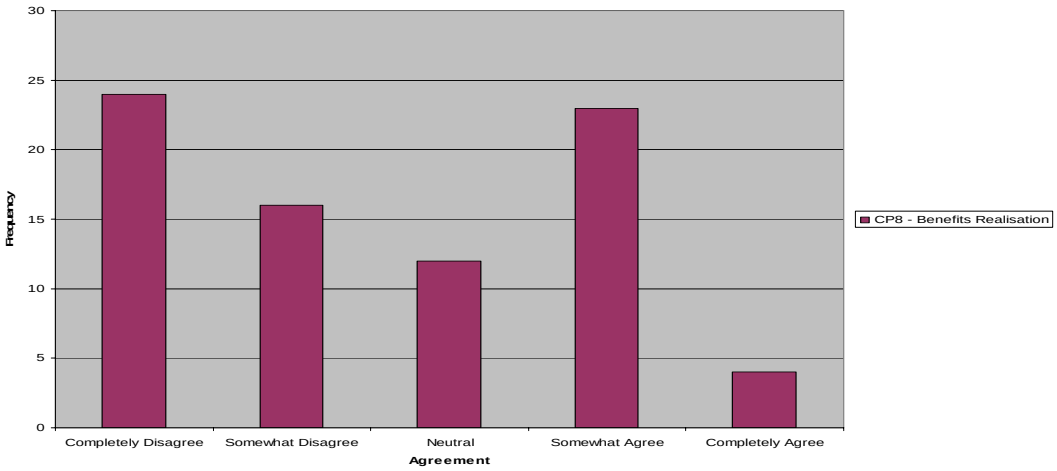


The specific results reported in table #4 above demonstrate the generally neutral to negative satisfaction levels with the results achieved by respondents when using PPM. The pilot survey was also not able to establish how individual respondents determined their definition of "results" as being effective or not. This is an issue which, once identified, will be addressed in future related research in more detail. To accomplish this, future case study work will attempt to pre-define commonly used and understood terms within the discipline to ensure a common and consistent interpretation by study participants.

When this question is compared with those related to the achievement of the planned benefits from the implementation of PPM, further evidence of respondent dissatisfaction with the

current PPM methodologies emerge: respondents who tried to deploy the current PPM methodology seemed generally unenthusiastic about the perceived realized benefits after having made an effort to implement PPM follows:

Pilot Study Table #5 – Levels of Agreement on Realization of Substantial Benefits from PPM Implementations

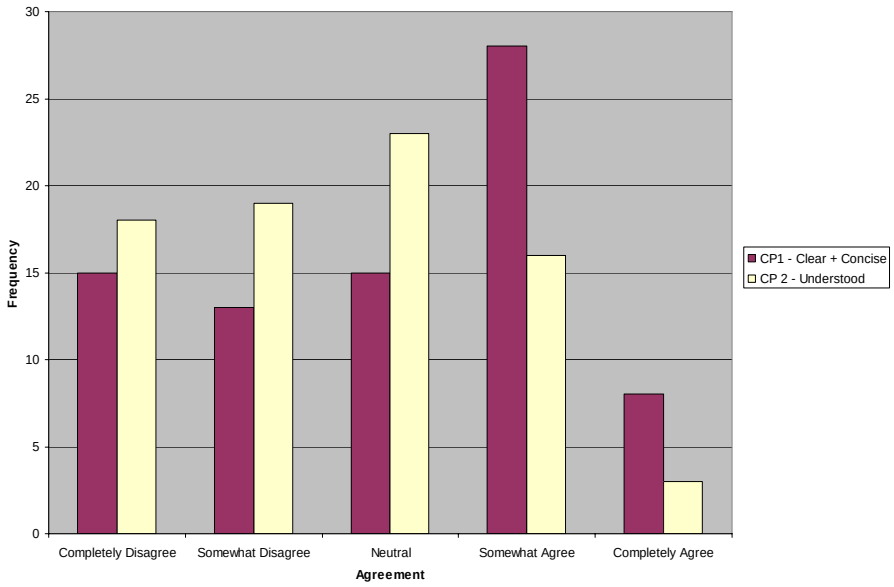


Again, when we consider this very specific question, the decidedly negative tone of respondents is consistent with the anecdotal evidence that initially got the researcher interested in this specific problem. PPM does not currently appear to work well in practice despite its promises. This suggests the need for additional research to discover why and what can be done about it.

5.6 Results – Strategic Clarity as a Contributing Factor to PPM Effectiveness

The pilot study explores the issue of clarity, in keeping with the assumptions that the lack of clarity around organizational strategy is contributes to the breakdown of PPM methodology in practice. When comparing the clarity of the organization's strategy with the notion of "well understood" and "measured", there was no correlation between the two. This is shown by reporting the scores of each of these two questions compared to each other. The conclusion drawn is that unless a strategy is clearly measurable, it would seem unlikely that it could be understood well enough within the organization to be a guiding force. Since measurement is often the means to provide clarity about fuzzy or abstract concepts such as strategic objectives, this failure by organizations to make their strategy measurable is an important finding which needs additional exploration, but may be a factor that presently contributes to the failure of PPM implementations. The chart is shown below:

Pilot Survey Table #6 – Strategic Clarity vs. Understanding



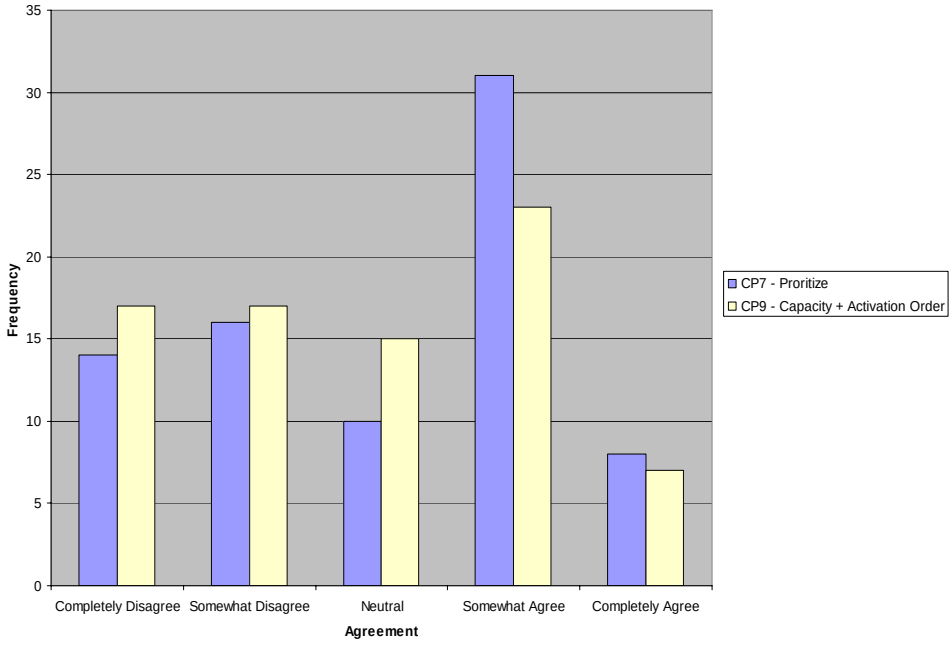
While the data suggest respondents may feel that their organization's strategy is "clear and concise", this does not translate into "well understood" within the organization, based on this pilot survey. So, what are the implications when we try to connect projects to strategy internally? The pilot survey would suggest, as earlier surmised, that any PPM methodology in use today can only be used to relatively rank and execute projects on some basis other than strategic priority. This is because the strategy is not clear or well understood so that, with certainty, one could say that any one project was more strategic than another. This requires that strategy first be completely understood – otherwise, one is precluded from linking anything other than an incomplete understanding of strategy to project selection. If these responses can be generalized more reliably in future studies (as the research believes is the case), it would suggest that those using PPM today must be doing so with only a partial understanding of their corporate strategy; thus, they may be getting only sub-optimal results from PPM anyway.

5.7 Results – An Exploration of Current Project Prioritization Methods

In the absence of successful PPM implementations, the final question is, how do organizations prioritize projects? Against what criteria do they make project trade-off decisions? Since respondents generally report a fairly constrained capacity to execute projects, it is clear they must be making prioritization questions but it remains an essential question for this thesis to explore further as to what these factors may presently be.

Seemingly as noted in the results reported below, most respondents appear to report some ability to "prioritize" projects. But fewer connect this prioritization to capacity planning techniques or improved release management and project activation processes (where the gain from this insight would most likely be felt positively). Again, this suggests some confusion about best practices in this area and that experienced project managers are absolutely struggling with this issue.

Pilot Survey Table #7 – Current Project Prioritization Methods



As previously noted in Chapter 2, current research suggests that the presence of prioritization methods related to capacity or capital constraints defeats the notion of being strategic and, at best, is a form of pseudo strategy. While it will certainly help the firm prioritize a list of projects; the projects picked using this method cannot, by definition, represent a strategically optimized basket of projects. Rather, the list represents a basket of projects that are affordable to accomplish. While an important consideration, it is a false assumption that this is a strategic approach.

5.8 In-Session Commentary

At the conference in December 2002, held in Toronto, Ontario a presentation of these results was made during a plenary session. This provided an opportunity for clarification of the interpretation of the results of this study. A few selected comments made during this session are provided below:

- "I've never understood PPM or Enterprise Project Management"
- "PPM wouldn't work at my company unless our executives want to give up the power to decide which projects to do on a whim…"
- "When we started off with PPM, it was too complicated and the PMO ended up being seen as less value-adding than before when we were only internal project management experts"
- "Our company doesn't seem interested in strategy – only profits"
- "We've used PPM for two years and it seems to be working well and it certainly has caused us to focus on fewer projects"
- "The problem with PPM is the same problem as with our profession in general – we only half think things through before we start talking about them and doing them – stupid!"
- "Our PMO started trying to implement PPM but it seemed to mostly add work and not many benefits except we started to pay more attention to risk managing our big projects."

Generally, the commentary (which included even those participants who had not filled in the survey previously) seemed to support the notion that PPM was the following: a) not extensively in use among participants, b) was perceived as overly complicated and not as well developed or articulated as it should be for practical use as a methodology, and c) seemed to offer limited benefits. As a result, many practitioners in the room were resisting PPM implementation because it could risk their social capital with company executives (because of a fear of complexity of implementation with limited benefits). This may as much be a result of the way it was being implemented as it was the PPM technique itself; this cannot be known from this limited pilot study and their was no opportunity for individual interviews.

5.9 Limitations of the Pilot Study

The survey used in the pilot study was limited to Canadian practitioners and is not globally representative of the profession. This was an issue of intended scope and cost. Since the primary focus of this thesis is the Canadian context, it was decided to leave the replication and analysis of this pilot study (if desired) in other important global geographies to researchers in the future.

The survey instrument used was developed by the researcher with input only from other practitioners and other colleagues. The instrument was designed for simple and fast administration rather than detailed data collection and this likely includes some inherent flaws and biases. In the

interests of timeliness and the nature of a pilot study, it was felt that any additional effort would not have significantly increased the reliability or validity of the results in such as way as to merit additional cost or time delays.

The instrument used was not extensively tested for congruence or clarity and this may lead to inconsistent interpretations by respondents, even though an effort was made to use standard terms well understood in the profession. The instrument's design limited the extent to which detailed statistical analysis can be used; however, when administered, it was already clear the survey would not be statistically representative, thus this was not considered a severely limiting factor.

Future work should ensure that these terms are in fact commonly understood and used quite extensively across the profession to increase reliability of respondent answers. Future researchers should note that language and terminology relating to PPM is just emerging and is not yet static to the point where it can be relied upon as being self-evident or self-describing to those in the field.

A significant limiting factor is the inability to separate results from these initial queries between the public and private sectors. This would have been useful information to have and may have articulated the extent to which each of these individual problems is or is not more or less prevalent in each sector. However, based on the availability of sample data, there was no specific way to address this limitation at this stage, but it is an indication for further research.

Finally, given that this was only a pilot study, it was determined that smaller samples, even if they were not statistically significant if measured against the total population of Canadian project managers, would suffice for the purposes of validating current practices. Therefore, the sample was selected from those attending Conference Board of Canada professional event related to project management. This may represent a level of minimal bias in terms of sample selection that precludes the sample from being considered random. However, the conclusions are qualitatively representative of current professional practice and this limitation can be ignored in favour of accomplishing the purposes of the pilot study.

Finally, part of the pilot study process was to establish that, among practitioners, the issues being explored were present and of concern to them. Thus, the objective of this study (in accordance with the guidelines of a professional doctorate degree) was to conduct pilot research to that would contribute to the existing professional knowledge, rather than to address all of these limitations. Therefore, while they are acknowledged, limited effort was made to address them

because this was a single-purposed, pilot survey that was primarily interested in shaping future research efforts rather than in offering a stand-alone conclusion in its own right.

5.10 Chapter Summary

This pilot study was intended to ascertain that the problem of interest did in fact exist and that making improvements in this methodology can ultimately improve professional practice. This is the purpose of a professional doctorate and this potential has been confirmed to the extent required by the results presented. The pilot studies also help to frame additional areas of research interest that will be adopted in the subsequent case studies to be reported herein.

The pilot survey was also helpful in formulating the format of the questionnaires used in the case studies of individual organizations. In both those surveys and the accompanying interviews, the perspectives gained during the pilot studies were helpful in sorting out the kinds of queries that would likely help the researcher locate the essential elements of the methodology and PPM practice areas that are most in need of additional exploration.

In the achievement of these critical objectives, the pilot surveys provided sufficient insight and were a valuable contribution to the execution of the overall research agenda for this thesis.

CHAPTER 6: VALIDATING THE METHODOLOGY – THE PRIVATE SECTOR CONTEXT

6.1 Chapter Objective

The purpose of this chapter is to report on the results of a case study of the proposed methodology in a private sector context. By beginning the research in the simpler context (profit-motivated firms) and then moving subsequently to the more complex context (socially-driven and policy driven firms), any learning that takes place can be incorporated into subsequent case studies.

This case study was undertaken as part of the on-going consulting work the author performs globally. While this candidate firm was among the first to adopt the new methodology, since then there have been significant numbers of other firms that have similarly done so and so the action learning around perfecting the methodology continues.

Each case study chapter will follow the same structure: it will describe the organization and its operating context, discuss the intervention in terms of the previously described research methodology and boundaries, describe the approach as it was performed and then analyze both quantitative and qualitative data to draw conclusions around the research propositions cited earlier.

6.2 Description of the Candidate Firm

The first case study reported herein was undertaken to investigate the applicability of the revised methodology in a private sector setting. Give the nature of any action research case study, which is being conducted in a live organizational setting, there are both advantages and disadvantages to this method as previously discussed. The primary purpose of undertaking these case studies is to address research questions #2 and #3 (related to the application of the new method in practice and evidence of its impact on the problem) rather than exploring the validity of the theoretical base of the proposed solution which was extensively explored previously. Therefore, there was a need to find a relatively large and complex private sector firm to undertake a case study.

The eventual candidate was Farm Credit Canada (FCC) based in Regina, Saskatchewan. This Canadian organization is a crown corporation (a public corporation operating at arms-length from the Canadian Federal Government but returning its excess profits to the government as dividends). It has its own Board of Directors, CEO and executive team and operates with a private sector mandate around agricultural lending. It currently has in excess of 1,100 employees and a portfolio in excess of $10B Canadian on its books. It has a significant profile within the Canadian financial services sector and is considered to be an innovator in terms of its go-to-market strategy within the agricultural lending sector. As a result, it always had a large number of projects

underway at once that would enable it to test the applicability of PPM. More detailed information can be found about the firm on its website (www.fcc-fac.com).

Having attended the Conference Board of Canada conference previously described in Chapter 5 in December 2002, the identification of the project portfolio management problem struck a chord with a key executive of the firm (K. Garrett). She was the VP of Strategy, Communications and Knowledge Management at the time of writing. She subsequently agreed to participate as a pilot for this new methodology to help her and the rest of the executive team at FCC address what they saw as a major business challenge.

6.3 Planned Participation & Research Boundaries

Using the previously articulated five step action research approach outlined in Chapter 3, and balancing the needs of a rigorous research methodology with the fact that the problem being studied exists within an operating business with its attendant real world problems, the summary table below notes the nature of the action step being taken, its objective and a summary of their expected results.

RESEARCH STEP	OBJECTIVE	ACTION & EXPECTATION
Step 1: Diagnosing	Identify the problem to be addressed.	This firm contacted me requesting a detailed executive presentation on the methodology after seeing a presentation on the development of a new PPM methodology at a conference where I was a speaker. Subsequent to the presentation, in which executives clearly saw manifestations of the problem as defined in the presentation in their own organization, I was engaged to implement the methodology. The expectation of this step is that a self-diagnosis of the problem's presence occurs and that the firm then agrees to the need for the proposed intervention. This occurred.
Step 2: Action Planning	Determine how the problem can be solved.	After the presentation, the terms of reference for a consulting engagement involving a series of training sessions and the development of a process and supporting tools for BSC-enabled PPM were agreed between the researcher and the firm. A detailed contract identifying the scope of the assignment, timelines, costs and the fact that it was part of a research study, and issues related to resources to be

		provided by each party and the ownership of the derivative work product were clarified. The expectations of this step are a specific written agreement which was achieved; terms of this agreement remain confidential at the request of the firm.
Step 3: Action Taking	Intervene in an organizational setting.	There were three separate phases to the planned intervention (noted in detail below). All were personally led by the researcher and supported by an internal team selected and assembled by the firm's Project Management Office (PMO) and selected external contractors as appropriate. Normal tactics involved in any consulting assignment were used including group training sessions, individual coaching & mentoring on a new process design, joint working sessions with the internal team, and validation of work produced. At each stage, careful attention was given to making sure the organization remained engaged in and excited about the potential impact of this change as a prudent way of avoiding resistance to change. Executive sponsorship flowed from the Office of the CEO and the Vice-President of the PMO. The expectation of this step is the design and implementation of a detailed new PPM process based on the refined methodology, enterprise-wide. This was achieved within nine months.
Step 4: Evaluating	Determination of effect.	To determine if the intended effect of the new methodology was achieved, research efforts were undertaken to consider the pre and post effects within the organization to select and prioritize projects. In addition, information is collected on participant satisfaction with the new process and supporting conclusions about process efficiency and effectiveness are recorded using questionnaires and structured interview techniques including direct observation of the firm's employees by the researcher while, intervening as planned to facilitate the implementation of the new process in the firm. The expectation would be evidence of a

		change in behaviour that was beneficial for the firm as a consequence of the intervention.
Step 5: Specifying Learning	Developing or Modifying Theory.	Once this case study was complete (December 2003), the implications for theory were considered by the researcher and refinements were made in preparation for implementing additional case studies in the public sector in 2004 in support of continued field research.

It is proposed that the execution of these steps meet the test for rigor outlined in the Research Methodology chapter and that conclusions drawn from this case study may be relied upon for the interpretation of results of the intervention.

6.4 Discussion of the Approach

Work began with this subject firm in February, 2002 with a presentation to the entire executive team detailing the issues and challenges of most PPM-related project management approaches and a description of the revised methodology that I was proposing they undertake and pilot. A copy of this presentation is attached as Appendix G and is a comprehensive representation of how a PPM process is proposed and recommended for implementation to senior executive teams when I am working with them on this problem.

The method chosen by the researcher is to begin by generating executive "buy-in" about possible gaps in current practice. Once the gap between existing practices and the revised PPM methodology as proposed are understood, there is generally agreement on the need to proceed with the design and implementation of a new PPM process for the firm.

In this case, the executive team clearly and immediately saw the value of what was being proposed and the organization's CEO lent his support to the endorsement of a project to be lead by FCC's corporate project management office (CPMO) to undertake this work.

Beginning in April, 2002 significant work to assess the state of current practices was undertaken by the researcher in conjunction with this internal process team. In addition, a series of executive interviews were conducted with key executives and other managers inside the firm. This resulted in the final plan (devised in May and June) for a three-phase implementation of PPM as follows:

- Phase I: Process Design
- Phase II: Implementation of New Core PPM Process
- Phase III: Implementation of Supporting Tools (capacity planning, estimating and project activation, tracking and control)

This was conceived of as a plan of approximately 6 – 8 months duration and with dedicated internal resources focused exclusively on each of these phases. This plan was presented to the senior management team in June, 2003 and approved to proceed.

Baseline practices were assessed and over the next three months as part of the overall design process, "strategic statements" were developed and measures were attached and approved to each one by the executive team. These efforts were guided by the existing presence of the Balanced Scorecard inside the organization – a notable advantage in terms of senior executives understanding balanced performance management.

The CPMO and the researcher also began the process of designing scoring models that would be used to embed these strategic measures into the project proposal and selection process (the breakthrough required for this revised PPM methodology to be tested internally). Additionally, a straw model previously developed by the researcher was shown to the team and they began the process of designing the internal FCC processes that would actually result in this process being usable within their own cultural context. This sample chart is shown in Appendix D in its generic form (in order to protect strategic business information confidentiality of the eventual scoring model developed by the candidate firm).

By September, 2003 and for the next three months, extensive consultations took place with affected stakeholders during workshops and training sessions held to explain the new process design. A cross-functional team was assembled that included representatives from all groups impacted by the new process design and the role of a "champion" for each area was assigned to a leader/manager from within that group. When workshops were held, these members took "front and centre" stage along with the CPMO staff and the researcher in order to gain credibility with important stakeholder groups.

Feedback impacted process design dynamically and at each step, improvements suggested by those on the "front-lines" or "front-edges" of this new process iteratively improved its ultimate, final design.

Concurrently, and because this is an organization that prides itself on being high performing, as a step in the process was perfected it was launched, installed and "road-tested" internally. This resulted in additional feedback and the opportunity for the organization to "learn as it went". This proved in hindsight to be a very effective method of process design and installation that the researcher would consider again in similar circumstances as an approach to business process redesign in general.

While the core process design steps continued, and phase II began to unfold, the corporate PMO undertook responsibility for identifying core processes inside FCC that would be impacted by this process change and working with the appropriate stakeholder groups to determine what, if any, process design changes were appropriate elsewhere in the firm to support the new PPM process. This ultimately reached across the company into such areas as Finance (related to how project business cases are assembled, documented and tracked), Human Resources (for changes in how project resources are identified, costed and hired), reporting (especially as it relates to embedding new strategic measures into existing reporting mechanisms) and IT (especially relating to software development methodologies, estimating processes, resource assignment and time tracking, etc.). All of the changes identified were agreed and implemented concurrently significantly enhancing the potential benefits of the new PPM process for the firm.

By Decmeber, 2003 most of phases I and II were complete and the new PPM capability was functional and operational within FCC. At this point, the firm terminated the consulting involvement of the author and proceeded on their own – a normal outcome with any consulting intervention. Anecdotally, executives reported a significant degree of satisfaction (see specifics below) around the value and benefits of the new process and for its ability to directly link projects and programs to strategy within FCC. At the time of writing, this methodology was still in use within the firm three years later as confirmed by the original project sponsor (K. Garrett).

Of note in this instance is the fact that this was a firm that consistently believed that it was already quite successful at "strategy" and in the author's opinion this was true. They *formulated* strategy quite well and could articulate it including a limited degree of specificity in terms of measures of intended outcomes. However, many of these were still quite financial in nature, a curiosity given their internal use of the Balanced Scorecard method beginning the previous two years.

What executives clearly saw as one of the major benefits of the approach taken within the revised PPM methodology was its demand that strategy be articulated in the form of clearly "strategy statements" with specific accompanying measures. Once this is accomplished with an

executive team, the emphasis within the organization can shift from formulation to *strategy execution.* This happens as a result of demanding that all aspects of activity within the firm, and especially the portfolio of projects that are currently being worked on, be constantly and dynamically connected to these strategic outcomes by associating the results of the project or activity with a measurable contribution to the firm's now clearly stated strategic goals. In the analysis section below, the range of supporting commentary about the clear and relevant impact of this step in the PPM methodology clearly emerges as being substantially important to the executive team as one of the major benefits of the effort undertaken. In addition, there was a substantial "culling" of both projects underway and proposed projects that were no longer seen as benefiting the strategy to the same extent as was the case prior to undertaking the implementation of the new PPM methodology. While this might be ascribed to a variety of factors, interviews were used to clarify this important outcome.

At the termination of the author's involvement with the firm, additional work was still underway to finalize the selection of supporting automated tools (especially on-line project management and capacity planning/resource management tools) to support the process but these are incidental to the major focus of this thesis and will form the basis of additional future research and conclusions specific to the area of automating this proposed new PPM process (collateral issues which are generally intended to be outside the boundaries of this thesis).

6.5 Collection of Data

Various attempts were made to administer a survey to collect baseline information on current PPM practices within the firm (see Appendix A). However, response rates were very low because the survey was mandated as completely voluntary by the firm and disclosure of the non-effect of not responding were strongly worded at the company's request (a common concern in Canada because of relatively strict employment law frameworks and privacy legislation). Given this was the first time the firm has participated in business-oriented research on its own practices, there was also considerable concern expressed about the researcher directly collecting information from the firm's employees and its subsequent publication.

The intent of the research design was to re-administer to the same population and validate changes in attitudes and behaviors post-intervention. However, this also proved quite difficult because of the constant nature of change in the organizations (both internally in terms of employees moving into new positions that may or may not have been directly involved with implementing the intervention and vacating previous positions that were involved and employees leaving the organization either voluntarily or involuntarily). While this approach was never considered as an experimental design since the researcher cannot control for extraneous or

exogenous factors in a business context, it is nonetheless important that the cohorts being compared are at least mostly similar in order to qualitatively conclude anything about the impact of the intervention in an action research setting. At a minimum, it was hoped this type of pre and post survey might establish that a change in attitudes and practices did or did not take place and the degree to which it might be ascribed to the particular intervention undertaken by the researcher. However, analysis of the results of this survey, while interesting are unlikely to be considered valid enough to provide supporting conclusions in this instance. As a result, the researcher made the decision to not rely on this data for this thesis.

Additionally, at every training session, post-event surveys were administered internally by FCC that asked specific questions of interest in relation to participant's satisfaction with the training process. Of use to the researcher was the opportunity for participants to offer up both specific comments to open-ended questions of interest as well as general commentary on anything they felt it appropriate to note. This is a substantial source of additional anecdotal data regarding how those in the firm were feeling about the intended process change.

The last aspect of data collection that the researcher performed was to conduct detailed and structured interviews (again in a pre and post-survey format) to explore relevant questions related to the benefits and disadvantages of the PPM methodology from the vantage point of an executive in the firm. The actual questions used are presented in Appendix B for reference while the results of those interviews form part of the discussion of results below. Given the challenges of using surveys in this setting, it was rewarding to find that executives were willing to actively engage in the interview process and this provided excellent confirmation of various findings relevant to this thesis. The company did allow these interviews to be taped but required that they archive and hold the tapes for reasons related to the Freedom of Information and Privacy Act (FIPA) to which they are subject as a federal government agency so all analysis was done from transcripts and notes of these interviews post-facto.

While it may be intriguing, even self-evident, to also collect longitudinal performance data (at both the individual project level and the enterprise level), in the researcher's opinion there are too many extraneous and uncontrollable factors that drive this performance inside any firm to actually draw conclusions about the impact of PPM on these outcomes without being able to isolate (at least to some degree) these other influencing factors. In addition, this data is often quite sensitive and firms do not generally feel at ease in sharing this data completely to a level required to conduct a complete enough analysis to be reliable.

6.6 Analysis of Data

As previously described, there are three possible sources of data to be analyzed regarding the actions undertaken within the firm and their effects. The pre and post questionnaires as administered to key executives, managers and training team participants to test responses to the new methodology in practice (see Appendix A for a copy of the questionnaire) but with the attendant problems related to its collection, this data was not substantially useful. The second source was structured interviews with 9 members of the then executive team and 3 members of the PMO staff – these generated patterns of insight which arose consistently were identified thematically and are noted and discussed below (see Appendix B and Appendix H). Finally, the PMO of this particularly organization also administered internal "training satisfaction surveys" at the end of each PPM training session (standard practice for this firm for any company-sponsored training program) and they granted me access to their own summary of this participant feedback for use in this thesis. Given that this additional data source was relevant to the outcome of this study, it is being reported herein although it is technically third party data rather than original research and the researcher has more limited control over its sourcing and quality than the first two forms of data.

Summary Analysis of Executive Interviews

The results of executive and key staff interviews at FCC were informative for the wide variety of input it provided in terms of the process itself and future opportunities to improve it. A summary of executive comments is provided in Appendix H. Not only do the comments provide insight into actual executive perceptions of the process itself, but they also validate that the expected outcomes of the process were actually accomplished.

For instance, in a review of the respondents perspectives on how projects were picked prior to the intervention versus after receiving training on and implementing PPM, it is notable that number of comments on the diminution of the importance of the project proposer as an important selection criteria. Instead, we see a shift towards executives being able to identify with selecting projects for their strategic importance rather than on their originating department. And three quarters of respondents (9/12) indicated that the process had positively impacted on the project selection process of the organization. This is an important behavioral shift that PPM should create in an executive setting as previously noted and is one of its hypothesized benefits. Comments supporting this interpretation included the following:

> *"The process takes the personality and politics out of approving projects – our conversations as an SLT were much improved from past years on this topic"*

The senior leadership team (SLT) was generally a highly motivated and successful group of executives and sparring and debate were common techniques found in previous annual planning sessions where projects were proposed and selected. However, based on interview descriptions, the process was highly politicized and based on an inferred hierarchy by title and function with particularly sales & marketing seeming to have the upper hand in terms of getting its projects approved by virtue of the potential threat of either lost or declining revenues if projects were not approved. With PPM, the need to justify projects against a pre-determined criteria eliminates much of this behaviour and this was generally positively received as an outcome of PPM.

In addition, there is notable commentary supporting the perceived value in the process in terms of its ability to reduce the number of projects and to ensure they are aligned to strategy. It would be fair to note also the executive comments regarding the complexity and cost of the process in relation to achieving this objective and some concern expressed about the amount of support required from both Finance and IT to make the process function optimally. For instance, one executive commented:

> *"This was a substantial investment of my and my colleagues time that will have to result in cost savings or improved project outcomes to justify…it's a good process – solid and makes sense – but our internal processes such as IT estimating or project budgeting are going to have to also improve if we are to benefit completely."*

General support for the process was high; and generally most executives interviewed were in favour of continuing to use PPM as the primary method of selecting and approving projects once they had been exposed to the method. Some commented they would do this again at another organization or would recommend it to peers as being value-adding as can be seen in the Appendix.

Training Session Participant Feedback

From the participant feedback at various company training sessions held to introduce employees to the new process and its supporting tools (held over a period of several weeks in groups of 20 – 30 participants over three hours), several common thematic concerns emerged.

In summary, the training sessions were generally highly rated (4.6/5) for their overall conduct (i.e. interest, pace, quality of materials, etc.) and also for their effectiveness (4.4/5) which addressed the applicability to their current role, their understanding of the material, and ability to implement the process going forward. This indicates participants were generally positive.

The most common concern expressed by participants in their write-in comments were the apparent perception of the process as "administratively cumbersome". The implementation team saw this as a reflection of the fact that the firm has virtually no specific process in this area prior to this intervention and projects were essentially summarized by the sponsor and support at the executive level was confirmed by conferring on the sponsor budget to proceed. Many staff had participated in the development of previous project summaries and so they would have been drawing comparisons between the rigor of the new PPM process and the former, less work intensive process in making this comment. Representative comments on this theme included:

- "Watch out for 'methodology madness' and putting too way much process in place"
- "My impression from the session is that there is a disconnect (sic) between the business and IT: the business does not appear to understand the value and benefit of a methodology and just wants results, fast!"
- "Once we find we can't get the projects approved at the speed we are used to, will we stick to this or change it all again?"
- "While this is a good system to help us select projects, I still think that some executives will be able to get their own way and get their 'pet projects' approved…"

Some elements of the commentary, especially in those sessions with large numbers of employees from IT present, seemed to focus on the disparity between IT and "the business" in terms of stick-to-it-ness in terms of methodologies generally. This is not an uncommon perception since often IT would observe the business trying to work itself around process imposed by IT to control this very behviour. The lack of succinct executive and corporate support to head off these "work arounds" in the past was a cultural relic beyond the control of the researcher and outside of the scope of the engagement to solve.

As a result, many participants commented on the very significant departure this represented culturally inside the corporation – moving from executive sponsorship as the primary asset for getting a project approved versus attempting to shift and sort projects on a strategically prioritized basis. Some skepticism was expressed by participants about just how substantially committed the senior executive team was to this change and some fear of the unknown consequences of making this change were notable in the comments on the participation forms. Some exemplary comments in this theme included:

- "It sounds like the most challenging part of this process will be changing our corporate culture to respect process and not politics…"

- "Get a communication consultant assigned to this project team so that communication is consistent, credible & clear…and targeted so that those who need to know about the new process can be in the loop early"
- "While the training was great, I will wait to see this process in action before deciding if it will work for FCC"

Again the implementation team noted these were offset by generally positive comments in other areas of the form about the firm being "on-track" and "finally getting around to doing something that should have been done years ago" and exhortations to "carry on" and "keep us moving forward" – so concern is balanced with optimism that the process will work and be value-adding within the firm.

Finally, when asked to comment directly on the merits of the new methodology (on which they had just been trained in detail including the use of new forms, online tools and being exposed to the strategic measures), the range of comments was pretty consistently positive. Many of these participants would have been involved in the beta process work during that Fall when the process was developed, tested and automated supporting tools were designed for enterprise-wide use. Others may have only been seeing the process for the first time. A summary of a few of the comments provided to me in summary are noted below:

- "We are getting to a good place…keep going"
- "I like what is being done…it is clear and simplifies project planning"
- "We can now say 'no' – the new PPM process gives us parameters to determine when a project should not be done – just make sure its OK to exercise this option with executives!"
- "Overall process looks very good. There will be some short-term pain but long-term benefit for sure…this is really going to help us cut down on useless work on projects that don't go anywhere half the time."
- "I think the process is valid. I look forward to being more involved in this project."
- "This is a lot to learn but the process design seems sound. I'll use it…"

Of some concern to the researcher was the absence of any negative or unsupportive commentary in this section. When the client was queried about this, it was reported that there were no negative examples on the more than 70 forms returned by participants. Although not directly substantiated by the researcher (in recognition that this was an internal firm-driven process rather than a part of the formal action research), it would appear that this outcome would support a qualitative conclusion about general satisfaction with the process and its value based on response to the training programs.

6.7 Summary Findings

Validation of the New Methodology & Evidence of Organizational Impact

It would appear from the findings that there is strong executive support for the proposed methodology and evidence of a beneficial impact within the firm. This is a significant finding. There is substantiation of the problem (i.e. the need for a strategically oriented project scoring tool and its ability to help the firm prioritize project work and manage their project portfolio for strategic outcomes) and a sense that this method can validly address this. And there is substantiation of the value of the process from an executive's perspective and confirmation of the fact that the proposed solution appears to address the problem as initially outlined.

Acceptance of Additional Process Complexity

There is limited acceptance of the additional process complexity required to execute the proposed process. Concerns were expressed around the degree of support required (particularly Finance and IT) to enable the process. Concerns were also expressed about the amount of time required to operate a process of this complexity versus the status quo and a quantification of these benefits. The researcher was aware of this concern from the outset and this was in fact identified as one of the research questions to be explored. This validating case study does reinforce this as an issue that required continued exploration.

Support for Modifying Current Theory

It would seem from a combination of observation and specific referenced data sources that the proposed changes as proposed can be validated as having their intended impact. Furthermore, that the problem as stated does exist and the solution as proposed can address, at least in part, the dilemma of on-strategy project selection and management of the portfolio. At this point, it would seem appropriate to move forward with additional case studies in the public sector to compare/contrast findings between the private and public sectors and to note any substantive differences between the two contexts.

CHAPTER 7: APPLICATION CASE STUDY #1 – PUBLIC SECTOR

7.1 Chapter Objective

The purpose of this chapter is to report on the results of a case study of the proposed methodology in a public sector context. After an initial application and validation in the private sector (Chapter 6), the research objective was to establish that the methodology had similar value and results in its target context.

This case study also arose as a result of prior knowledge of the methodology by a key leader in the organization. The current Associate Director (J. Nyman) attended a seminar sponsored by the government of the Province of Ontario where I was the keynote speaker. My topic was the on-going challenges of project execution in the public sector and reporting on emerging best practices for strategic project selection in a non-profit context. This resulted in an expression of interest from the candidate organization for follow-up meetings where their interest in participating as a case study around this new methodology was established. At the time of writing, this methodology was still in active use within the organization and I have an on-going consulting relationship with the organization in terms of continued improvements in its development and application.

This case study chapter follows the same established structure as the prior chapter: I will describe the organization and its operating context, discuss the intervention in terms of the previously described research methodology and boundaries, describe the approach as it was performed and then analyze both quantitative and qualitative data to draw conclusions around the research propositions cited earlier.

7.2 Description of Candidate Organization

The candidate of this first public sector case study is the Peel District School Board (PDSB), one of the largest of its kind in Canada comprising the management of 183 individual school sites, over 11,000 employees and serving more than 100,000 students through a complex multi-stakeholder governance model complex internal management systems. More information on this organization can be found on their website at www.pdsb.org .

In Canada, School Boards are funded by the provincial government and governed by a group of elected trustees. However, the organization is ultimately run by a Director of Education and a group of officers (both Associate Directors and Superintendents of Education) that comprise the management team drawn normally from the ranks of professional educators (mostly former teachers). Approval of the Director of Education requires both trustee consent and approval of the

Minister of Education of the Province of Ontario. As is often the case even in the private sector, the organization further refines their management structure to separate the operational arm (divided into regions called "Families of Schools" on a geographic basis) from their board-wide, centralized support functions such as Finance, Human Resources, Accommodation & Planning and Curriculum & Instruction. These are housed at a central board office – commonly referred to internally as "CBO". This creates similarities to the private sector concepts of "head office" and "the field" but expressed in public sector terms.

The "product" in this case is the formal and informal education of students to a level required in a prescribed provincial curriculum. Internally, this is referred to as "achieving student success". On the surface, this is easy to agree with and a laudable objective and strategies related to executing this mandate should be obvious. But it is also quite conceptual and a difficult strategy to implement given its reliance on social policy objectives and outcomes and the nature of the multiple stakeholders (students, teachers, administrators, elected trustees, parents, tax payers and the Ministry of Education). In this last point, we illustrate exactly the weakness of existing PPM methodology for application in this context – there is virtually nothing related to financial efficiency or rates of return in accomplishing "student success" – and it is not at all clear that every stakeholder would currently view strategy in the same way or from the same perspective. This suggests there is not a single, defining underlying strategy (such as "being profitable") that correlates to the private sector context. While it is clear the organization must be an effective steward of publicly-provided funds (and this is actually a part of their stated strategy), this is an outcome of good management practices rather than the core of their strategy. The core of their strategy relates to more balanced outcomes such as effective curriculum & teaching practices, the use of technology in the classroom, absenteeism and the state of relations in the school among staff, students and stakeholders. These dimensions of performance are far more central to students achieving their full potential than financial objectives – but they are harder to measure. Yet they are essential to picking strategic projects for this organization.

So, at the outset of this case study, the organization was struggling with the issue of how to make strategy more measurable (apart from standardized test scores done province-wide and subject to the normal and considerable debate regarding validity and reliability of standardized tests in educational settings). They wanted to decompose this broader strategy and determine the specific, identifiable drivers of student success in order to focus the organization's resources and efforts on this strategic outcome.

This makes the problem they faced a classic representation of the gaps originally diagnosed with current PPM methodologies – in the absence of an overriding and singular profit motive,

PPM as currently defined would not be able to accommodate this kind of diversity of strategic intent and the complexity of the associated measurement system required to support multiple, non-financial strategies in a workable project scoring model. That is, until we combine the logic of PPM with the strategic flexibility of the balanced scorecard.

In addition, and for many years, the organization was struggling with having too many projects and initiatives launched centrally into the entire system. This created what we started referring to as "project fatigue" within the organization. The overwhelming flow of data, requirements, and requisite activity was creating chaos at the local school level with administrators (School Principals and Vice-Principals) were increasingly finding it impossible to cope with what was expected of them and were often quoted as saying something like: "if I actually did everything that everyone wanted me to do, the job wouldn't be doable".

As a result, they were making their own individual choices about what would and could be done within their schools making them, de facto, the actual decision point for the execution of the organization's strategy. So even if projects were conceived and launched, absent of evidence field support they would fail to achieve their intended impact. So the volume and scope of the current project portfolio supposedly underway was clearly not achievable in the context of the available system resources. They were deceiving themselves but not intentionally.

Every single project or initiative that was proposed and undertaken was done so with the best of intentions and a sense from the originating department of its compelling impact on student success. Yet, since no strict measures were in place to define "student success" prior to this PPM effort, on what basis were these conclusions being drawn? One administrator said: "I choose projects that I think will be best for the system and students". When probed as to what criteria he would use to help him define "best", fuzzy logic and unclear answers emerged.

The real question that this organization had to pose for itself was: from among all this project activity, which ones were absolutely essential to student success and which ones were spurious or inconsequential? And this would require a stricter regime of measurement to inform decision-making if the same mistakes as at the outset of conceiving all these projects were not to be repeated.

Given the sheer volume of activity present in the organization, they were even having difficulty determining which projects were actually driving student successes versus simply driving activity. They were afraid to stop doing anything because they could not address this central question from a measurement perspective. Without an ability to insightfully determine high impact

projects, it becomes impossible to assess projects and prioritize them to receive internal resource support. Ultimately, this renders the environment quite political and, as was seen previously in the private sector case study, the default position is normally to assigning priority based on who the project sponsor is – the more senior the Superintendent or executive proposing the project, the more support and resources it was likely to get. This sentiment was reflected in the responses to the questionnaire as noted in a subsequent section of this case study report.

The outcome of this self-diagnosis was a bold decision in 2002 by the executive team, based on a proposal from the Associate Direct (Judith Nyman) and supported by the Director of Education (Jim Grieve) to implement the Balanced Scorecard methodology to achieve this. The researcher was not directly involved with this decision resulting in an organization that had, a priori, already established that it wanted to use a balanced scorecard as its organizational performance management system.

In so doing, one of the major changes they opted for was a change in language away from private sector norms to public sector norms resulting in the creation of the "Report Card for Student Success". The researcher had the opportunity and benefit of working on the design and implementation of the Report Card with the Board of Education's executive team and this work continues even at this writing with additional next steps planned which include additional phases to bring the Report Card for Student Success on-line and expanding its audience to include those stakeholders (such as parents and educational administrators in the Province) who are not part of the organization directly but whom have a direct interest in the Report Card. This alone indicates to some degree the initial success that the management team feels that it has achieved by applying this methodology.

While the issues being addressed within the public sector context vary (i.e. tracking a positive social outcome such as student learning) versus producing a commercial product or service, the expectation is that the methodology should translate effectively into this context and generate similar results to those previously achieved in the private sector.

7.3 Planned Participation & Research Boundaries

Utilizing the same five step action research approach previously outlined in Chapter 3, the summary table below notes the nature of the action step being taken, its objective and a summary of the actions and their expected results including any anticipated or agreed limitations on the research scope.

RESEARCH STEP	OBJECTIVE	ACTION & EXPECTATION
Step 1: Diagnosing	Identify the problem to be addressed.	The Board of Education self-diagnosed the problem of "too many projects" underway at once and no clear "line of sight to student success" internally. They had already in 2002 adopted the balanced scorecard as a means of assessing and measuring system performance. The Associate Director (J. Nyman) was subsequently persuaded the BSC-enabled PPM model might address this gap. She had met the researcher at a workshop hosted by the Province of Ontario on Private/Public Sector Partnerships where a presentation on my suggested revisions to existing PPM methodology was made whereupon we agreed to meet and continue the dialog around possible research collaboration. The expectation of common agreement on the presence of the problem in the organization was achieved.
Step 2: Action Planning	Determine how the problem can be solved.	Previously, the Board of Education hired a consulting firm to assist with its implementation of BSC including facilitating sessions with senior Superintendents, provision and preparation of materials and expert advice. They engaged this researcher to act as an expert resource on PPM, to train the organization more broadly on the methodology and to track the results and prepare a written case study (contained herein). These terms were agreed in a subsequent letter of engagement that the client has asked remain confidential; however, the expectation of agreeing on the nature of the researcher's involvement and associated items (costs, intellectual property ownership, publication of the case study and ethical compliance) were satisfied.
Step 3: Action Taking	Intervene in an organizational setting.	This case study took place over a period of two years beginning in April, 2003 until approximately June, 2005. The specific interventions included attending and observing meetings, facilitating workshops and training sessions, preparing relevant materials, and administering questionnaires and conducting interviews. This was done while participating in the process of creating the organization's BSC and implementing the associated PPM materials to support its use. The expectation for organization-wide implementation of a new process to determine its benefits and challenges was accomplished and the methodology is still in use presently within the School Board.

Step 4: Evaluating	Determination of effect.	To determine if the intended effect of the new methodology was achieved, research efforts were undertaken to consider the pre and post intervention approach used within the organization to select and prioritize projects. In addition, information was collected on participant satisfaction with the new process and supporting conclusions about process efficiency and effectiveness are recorded using questionnaires and interview techniques in addition to direct observation of the firm's employees by the researcher himself. The expectation is to test the previously designed methodology for its application in a more complex, public sector context to determine if there are similar benefits and challenges and to test its validity and reliability in this sector and to determine if any additional indicated modifications emerge during the action research process.
Step 5: Specifying Learning	Developing or Modifying Theory.	Once this case study was completed (June 2005), the implications for theory in relation to public sector implementations of the revised PPM methodology were considered by the researcher for inclusion in this thesis and in preparation for ad additional public sector case study which had just begun as part of continued field research.

The execution of these steps in this order meets the test for rigor outlined in the Research Methodology chapter. This enhances the reliability of conclusions drawn from this case study. While not representative of the public sector in and of itself, this organization is notionally similar to others in the public sector and where these parallels exist, there may be useful findings for public sector practitioners generally.

7.4 Discussion of the Approach

In order to be a useful validation of the proposed PPM methodology outlined herein, it was important that substantive changes to the methodology not occur unless they were linked to a proven difference in context between the private and public sectors. Therefore, an effort was made by the researcher to ensure the new methodology outlined in Chapter 4 remained substantially the same and was applied similarly in both case studies and as validated in Chapters 5 and 6.

More often than not, candidate firms seem to make some changes related primarily to terminology and language. Provided these did not involve a change in the methodology, the

research allowed these and notes they frequently seem to assist with the contextual understanding of participants because the new labels/terms tend to reflect their own organizational context. For instance, in the public sector context "profit" is not the objective of financial management systems, but rather they focus on stewardship of funds and appropriate monetary allocations and controls. Similarly, there was a need to adjust some of the language around words like "clients" or "customers" and replace it with "students". In the researcher's opinion, none of these labels ultimately changed the intent of the methodology being tested.

However, to not make these changes would have the reverse effect and could impair understanding of the proposed methodology. Therefore, the decision to make notional changes in labels or language should rest with each individual company/practitioner.

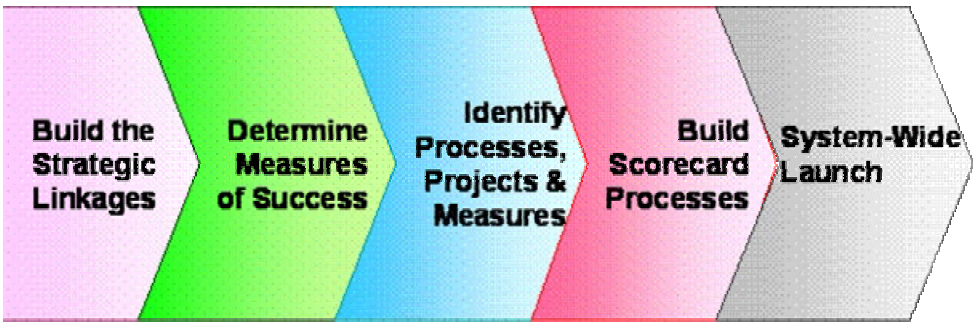


Figure #18 – Five Phase Implementation Plan

The candidate organization in this instance chose to define five phases (shown above) for their implementation versus three in the previous case study as shown above in Figure #18. However, in this case, the first step in the process (beyond the normal presentations and meetings with management initially) was to build a scorecard for the organization because it did not yet have one. This work was done by engaging a Toronto-based consulting firm who specializes in BSC consulting prior to the beginning of the PPM case study. This initial activity began in February, 2002 and carried on for the better part of that calendar year completing in March, 2003. This was not a part of my work with the organization. However, baseline data and information related to existing measures and data sources was collected and analyzed by the team. This resulted in the creation of the first incarnation of the "Report Card for Student Success", this organization's version of a Balanced Scorecard. I became engaged with the firm shortly after the completion of this in mid-2003.

For each area of the balanced scorecard, strategic outcomes were identified relating to student success. A traditional "strategy map" (part of the process of developing a balanced

scorecard) was constructed including the assignment of measures to each outcome (what this organization called the "proxy measure"). This is shown in Appendix I for information. Once this was accomplished, these same measures would indicate the overall progress towards achievement of the stated strategic outcomes at the organization-wide level and would be used to measure the "strategic contribution" of current and proposed projects once PPM was implemented in its entirety. To accomplish this, any project is expected to identify and state its absolute contribution to achieving the targeted performance on each strategic measure – contribution may not be present, indirectly present, or a weak or strong direct contribution. This was balanced with a similar assessment of project risk so as not to overstate the benefits of risky projects. Obviously, more "strategic" projects touch more of the targeted measures more directly with less risk thus establishing projects with the highest potential.

An example of how expected contributions and measures from the Report Card for Student Success were linked is shown in Appendix J. Working with the senior leadership team, we took each objective from the strategy map and added a description, an indicator ("measure") and then identified projects and processes that would contribute to improving the measure. This creates clear pathways (the term normally associated with strategy maps in a BSC context) between action and results and helps make strategy clearer within the organization.

The identification of a number of key internal processes that contribute to this outcome measure and the addition of agreed on "process measures" were intended to help them determine how performance in these areas could contribute to overall strategic outcomes such as "Student Success". Finally, they culled through the current and proposed project inventory (quite a substantial task in this case as previously noted because of the sheer volume of activity underway organization-wide) and using the newly developed PPM scoring model, made determinations of which projects contributed to each measure and to what extent.

This effort took several months and involved significant group discussion among both the Directors' Council (comprised of the Director and two Associate Directors of Education) and both centrally-based and field superintendents about the measures and how project contributions were being assessed. This long effort culminated in their first effort ever to optimize their total portfolio of projects for maximum strategic benefit which was published in June, 2004 when every single element of the Report Card for Student Success had measures, target priority projects and targets established and understood organization-wide.

This is the ultimate intent and biggest benefit of PPM as proposed herein. When modified to use external strategic measures rather than purely internal project measures, the methodology

allows an organization in either the public or private sectors to make informed rather than incidental decisions about which projects should be chosen for execution to optimize and support execution of their intended strategy. In particular for this organization, the PPM effort was further intended to also reduce the volume and flow of projects emanating from the organization's central office from the "many" to the "few" in order to increase organizational focus and increase the likelihood of maximizing results within the available resource envelope. Especially in the public sector, this is a critical goal that ultimately determines how successful the organization will be.

In this instance, the Superintendents were able to collectively reduce the level of system-wide project activity by over 50% as a result of now having a rigorous measurement system attached to the definitions of "student success", a formerly positive by ambiguous statement of intent. Anecdotally, system-wide reports during its next school year of operation noted a significant reduction in work associated with projects and an increased focus on essential elements of education that teachers felt related to student success. This enabled them to conclude that many of the projects previously underway were perhaps less strategic than originally thought and so they were cancelled. This effect (the ease with which discussions of how to cancel projects were undertaken) is in contrast the norms in many organizations previously identified as a challenge for organizations (Keil, 2000) in both the public and private sectors. In fact, more often than not failing projects continue to be supported until failure is so self-evident that management can no longer remained committed to the failing course of action.

It would therefore appear that a tangential benefit of the PPM methodology is an early recognition of projects that are in trouble and a willingness by management to cancel them and to redirect these resources to new projects that are more strategic. If this effect if further substantiated in future case studies, it would represent a significant breakthrough in its own right and an additional organizational benefit of PPM that, while logical in retrospect, was not entirely anticipated at the outset of this research effort.

The implementation of a project scoring model based on an organization's existing or newly developed balanced scorecard provides a new level of strategic certainty by enabling the organization to look at *all four dimensions* of its stated strategy (not just the financial return on a project) to ensure that it has sufficient activity in each of the four areas to be able to achieve its goals. Or alternatively to potentially determine in advance that its strategic goals are too bold and may not be achievable in the anticipated timeframes they thought were possible.

So, in this instance, administrators were not only able to more easily rationalize the current inventory of projects to determine those that were "more strategic" – but they were able to identify

areas of the strategy that were weaker and needed additional project activity to ensure the desired results were achieved. This is a powerful application of the notion of "balance" contained in the original BSC work of Kaplan & Norton (1996) that can now be articulated more clearly in a methodology that implements "balanced" project-scoring techniques as proposed in this revised PPM methodology. It would appear from these early results that tying these two established methodologies together creates a more powerful organizational outcome for both.

The timelines for implementing the new process began initially in parallel with the work on the actual Report Card but really didn't get completed until closer to the end of this process around March, 2004. For each area on the Report Card, an internal "Champion" was assigned to lead efforts to review each project individually and to begin the process of connecting its deliverables to the newly stated measurable strategic outcomes. In addition, this champion also undertook the work of examining and reviewing existing processes to similarly optimize their design to focus on measurable results linked to strategy as had previously been done with projects. Again, this work took a substantial amount of effort to complete board-wide and was essentially completed by about June, 2004. This was intentional so that the entire work effort (the Report Card for Student Success, the Strategy Map and its Measures, the Process Measures and Approved Portfolio of Projects) would all act to focus efforts in the following school year beginning September, 2004 to June, 2005.

Concurrently, the process of collecting internal data and beginning to report his organization-wide began in January, 2003 and was refined over a period of several months. Baseline data was useful in refining reporting and tracking mechanisms and for refining the understanding of the availability and reliability of data to support the Report Card for Student Success effort. Eventually, the intent was to begin to track and publish this data to the broader system (i.e. beyond just the senior management team) beginning in September, 2004. Obviously, many of these dates correspond to natural starting and ending points associated with the typical school term in Canada.

As was done in the private sector case study, once this all initial work was completed by the executive team and the individual cross-functional work teams they headed up, the need to take it "into the field" was clear and training sessions were held in every family of schools region as well as for each central board office support function. The annotated contents of this training session are reproduced in Appendix J-1 for the reader's reference. These sessions began in September 2003 and continued for approximately eight months through until May, 2004. Attendance at each session ranged from a low of fourteen to a high of more than fifty individual administrators representing a range of levels and functions within the board. Each was conducted in a similar

fashion although in some cases the examples used to highlight concepts were modified based on the interests or functional area being trained. However, consistently all participants got a similar basic introduction to the methodology, why it had been selected and how it would be implemented within the School Board.

A generic copy of the training presentation used for these training sessions is attached as Appendix L for the reader's interest and has been annotated by the researcher to improve understanding of the objectives to be accomplished in the training session.

7.5 Data Collection

Throughout the case study, observation of the process and its resulting outcomes were kept. In addition, artifacts from the actual project (as shown in various appendices) provide supporting evidence of the extent of implementation of the methodology in its unique form for this organization.

In addition, the technique of conducting pre-post interviews (using the structure previously outlined in the previous case study and as shown in Appendix B) helped the researcher gain an understanding of the candidate organization's perspective on its own behaviour and actions. When the interviews and direct observations are combined, the researcher was able to correlate conclusions about the value of the intervention with supporting data. Of note is that the turnover level in this organization is particularly low; common to these types of public sector organizations. This meant a consistency in the cohort being studied that is impressive with over two years of nothing other than additions to the team with no retirements or resignations otherwise. This makes pre/post comparisons with this group (either in interviews or surveys) particularly valuable and valid.

Finally, during interviews held with selected organizational leaders (Superintendents specifically), ten survey questions were asked of participants about the process of implementing the Report Card for Student Success. A copy of this instrument is included in Appendix P. Once tabulated, these results might provide additional insight into the specific impact on a participant's understanding of organizational strategy and project selection both before and after the intervention.

7.6 Analysis of Data & Discussion of Results

The collection of survey data does provide an opportunity for limited statistical analysis to be performed. These include measures of sample variance, dispersion and reliability (such as Cronbach's Alpha which is applicable in small sample sizes such as this one and Hotelling's T-Test)

and variance analysis techniques (in this case using Chi Square anlaysis) primarily focused on establishing meaningful, statistically significant correlations between demographic variables and survey responses. All analysis was based on the survey responses provided. A full tabulation of the 19 interview questionnaire responses and basic descriptive statistics (minimums, maximums, means and standard deviation) are presented in Appendix N along with the reliability statistics on the dataset itself.

In Appendix O, the results of Chi Square cross-tabulations among all the dataset can be used to locate potentially meaningful results between specific demographic variables (such as role and tenure) and a single respondents understanding of organizational strategy (questions 1 – 6) and project selection and measurement (questions 7 – 10. Full results of these analyses for all possible and appropriate combinations of variables are included but the discussion here only highlights those findings which are statistically significant using a pre-established threshold for significance using a 95% confidence interval.

Sample size in research settings such as this one is always an issue. While 19 of a possible 23 respondents is a high response rate, it is still a small, closely clustered sample. Therefore, the Cronbach's Alpha on the responses by question type ranges from .203 to .427. This may reduce the statistically validity of any correlative analysis undertaken using this sample; however, this is unavoidable in the circumstances.

An analysis of cross tabulations produced only a limited number of important results that were significant. One notable exception was a strong correlation (p=.021) between tenure in the job and questions #6 regarding how time consuming participants found the process. The longer a Superintendent had served, the less onerous they found the time commitment required to master the new process. This is not surprising and makes sense in the context of a participant in the midst of mastering the demands of a new position versus a seasoned veteran. This same correlation, but to a less extent (p=.048) was seen between tenure and question #7 related to the extent to which the process helped the participant under their organizations strategy better. Less experienced professionals found this more helpful than those with more experience. When probed during the interview, more senior candidates stated they were more comfortable in their current understanding of the organization's strategy (although this was not borne out in observations of the research in relation to their ability to express measures that would help them implement that same strategy). Less experienced members of the team seemed to be quite excited about the degree of clarification provided by participating in a process of finding measures to help them define the measurable contribution of strategy and align projects accordingly.

There were no other important correlations noted between either role or tenure and how respondents answered the questions regarding strategy or project selection.

Given that a critical contribution of the methodology is to provide both a measurable clarification of organizational strategy and to enable the organization to select projects which align to delivering results connected to this strategy, it was important to the researcher to establish a connection between the "before" and "after" behaviors of the organization after the intervention. To support this more clearly, during the interviews, two specific pairs of questions were addressed (questions #1/2 and #3/4) to participants. A post-hoc analysis to compare the means of the responses between these two sets of questions clearly demonstrates significance (see Appendix N for complete results) where the effect of the intervention both clarifies organizational strategy for the participants and also increases their stated ability to select projects that align to that strategy. This is additional confirmation of the same finding from the previous case study and validates again the value of the PPM process in clarifying strategy and linking it to project selection.

Further exploration of the reasons for this effect during both researcher observation of the process and during the interviews with leaders validates this outcome. Notable comments provided during the interviews in support of this conclusions included:

- "The process initially seemed too difficult for us to agree on but getting the measures right forced us to define what our strategy really was going to be…"
- "If we are going to pick better projects to fit our strategy, we first have to be able to measure the impact of any proposed project and then compare it to the targets and results we expect to have at the board-wide level"
- "The Report Card for Student Success will help me change Principals' and Teachers' views of what's important and help them align their activity to ours…"
- "This exercise has really helped me understand why our system feels so overloaded…we have too many projects with too many objectives and no way to sort out what we should really be doing every day."

The researcher can further validate that after the initial exercise to define the strategy was complete and the measures were established, an exercise was undertaken to compare major current projects underway with an expected contribution to the strategic measures. The leadership team met for several days over a period of two months to first list then to assess each project. At the outset of

this session, the informal sense among the group (polled at the outset of the sessions and observed by the researcher) was that most of these projects would be validated as being strategic.

However, this was not the case subsequent to reviewing the scope of each project against the newly developed measures of strategy. Of the original 96 projects then approved and underway, close to 1/3 were deemed to have no strategic justification for continuing after the review was complete reducing the on-going project list to 54 thus eliminating 42 projects that had previously been thought of as having strategic value. This is evidence of a direct impact of the PPM process as conceived. While not necessarily all of these reductions can be attributed to increased strategic clarity, the observation of the group and its comments would suggest that had the measures been in place at the time of project conception and approval, the project might either not have been proposed and often not approved even if proposed. This is a critical finding and one which continues to need additional exploration in future to sort out if a general bias *against* approving projects (even those that are strategic) may exist among leaders with limited confidence as a result of past projects having failed to contribute as expected. If this was the case, there would be a skew towards acceptance of this methodology simply because it *may* reduce the number of projects approved and not necessarily because it does so on a strategic basis. This nuance of interpretation is to be the subject of a recommendation for future research.

In considering the validity of this outcome in relation to the intervention undertaken with the group, it is imperative to consider that the actual "stated strategy" of the organization did not change during this exercise. There were few other extraneous factors that would appear to explain this sudden decrease in the perceived strategic value of on-going projects other than a re-interpretation of the projects in relation to now measurable strategic objectives. Since all that changed was an attempt to add measurable outcomes to the strategy in a way that enabled leaders to consider the contribution of any project in relation to strategy, it would appear that this conclusion supports the impact of the methodology on project selection outcomes to a certain extent.

This is also not an unexpected outcome as previously noted by the researcher at the outset of the case study. In the absence of an ability to pick projects that are truly strategic, alternate means of project selection are bound to arise including justifications ranging from financial efficiency to who the project proposer is. However, none of these methods should be considered "strategic" but rather as being "pseudo-strategic" since in the absence of measures to confirm strategy, there can be no certainty that projects that are selected are in fact strategic – the very essence of this thesis.

Finally, since performance data on many of these indicators is public information in Canada, it is possible to validate an indirect performance improvement in many areas. For instance, the standardized tests used in Ontario (EQAO) and referenced as an indicator in the Report Card for Student Success show two consecutive years of improvement (June 2005 and June 2006 published results for the prior year's test administration) by students in the Peel District School Board. While it would be an incomplete conclusion to assume this increase is all due to the methodology, it would seem as if the effort around targeted improvement in key measures is succeeding and that the emphasis on prioritizing projects which have the highest potential impact at least partially creating the intended outcome of a positive movement in these strategic measures.

7.7 Summary Findings

Validation of the New Methodology & Evidence of Organizational Impact

It would appear from the findings that there is strong evidence of both leader acceptance of the proposed methodology and evidence of a beneficial impact. There is a correlation between changes in behaviour and project selection outcomes and the introduction of the new methodology. Investigation of the impact suggests that leaders in the PDSB support the approach and have found it useful in assessing the degree to which any particular project does or does not support their intended strategy evidenced by outcomes such as reduced number of approved projects (post-hoc) and improved ability to state project benefits and outcomes in strategic terms.

Acceptance of Additional Process Complexity

While the issue of process complexity was more subdued in this case study than in the previous example, the hint of caution around time commitments is still present when one looks at the results of the survey and the interviews. In this particular case study, the participants seemed more than willing to extend the time to participate and saw value in the process. However, the sustainability of a complex process like PPM also depends heavily on sponsorship – in this instance emanating from the Director and Associate Director. In a heavily hierarchical organization such as this one, it would be expected that strong sponsorship would lead to acceptance down the line – it is the degree to which this is mandated versus authentic that is of interest to the research and less clear from this case study than might have been hoped. Again, this is a nuanced interpretation of the observations from only a single case study that should be the subject of additional future research.

Support for Modifying Current Theory

This second case study has apparently validated a similar outcome to that observed in the private sector. There is a need for a strategically driven project scoring method to assist with project

selection. It would appear that existing methods were leading to false conclusions about the value of any particular project in relation to execution of the strategy – evidenced by the retrospective canceling of many previously approved projects. There are strong and statistically significant findings around the value of the methodology in terms of clarifying organizational strategy and enabling more sophisticated interpretations of proposed project outcomes in relation to that strategy. The proposed methodology would appear to provide a possible solution to the problem it is intended to address and should continue to be investigated further.

CHAPTER 8: APPLICATION CASE STUDY #2 – PUBLIC SECTOR

8.1 Chapter Objective

The purpose of this chapter is to report on the results of the final case study undertaken with regard to the use of the proposed methodology in the public sector. It continues to build on the results of the previous public sector case study (Chapter 7) and was undertaken most recently.

This case study opportunity arose as a result of the CEO of the organization (S. Leal) attending a conference (also presented by the Conference Board of Canada) in 2004 where I was the keynote speaker. The topic of this seminar was BSC-enabled strategy, particularly with regard to the selection and implementation of strategic projects like CRM, ERP and similar high risk/high reward systems. This presentation resonated with the CEO and resulted in additional discussions about her willingness to become a candidate for the implementation of a new PPM new methodology that, in the view of the researcher, would help her address this question (and related self-described strategic issues) she was facing within her organization at that point. The referencable work done to date with the Peel District School Board was also persuasive and the Associate Director of that organization acted as a reference for the positive experiences to date with the methodology for the CEO of PLASP prior to her making the decision to proceed.

This case study chapter follows the same established structure as the prior chapters: I will describe the organization and its operating context, discuss the intervention in terms of the previously described research methodology and boundaries, describe the approach as it was performed and then analyze both quantitative and qualitative data to draw conclusions around the research propositions cited earlier.

8.2 Description of Candidate Organization

The subject of the second public sector case study is the Peel Lunch and After School Program (PLASP). As one of the largest operators of child care centres and after-school programs in the Province of Ontario, it is chartered to operate as a non-profit foundation rather than as a private enterprise. Its sources of funding including the transfer of government tax revenues in the form of per-child grants for eligible pre-school aged children, income-geared tax subsidies from the Province of Ontario paid to low income parents for both pre-school and school-aged child care, and market driven fees paid by parents above certain income levels. This makes it another interesting example of a variant often found in the public sector worldwide – a non-government organization (NGO) that gets is sustainable income from both private and public sources. These types of organizations are near to government (and are often heavily regulated or controlled by

public policy considerations), but technically operate at arms-length from government. From its marketing materials, the organization defines its mission as being "a world-class child care provider" with a focus on "child-centered developmental approaches".

PLASP operates currently 17 nursery sites (providing care for infants from age 6 months to four years) and close to 200, school-based programs that provide seamless before and after school care for primary school-aged students in grades one to six. It has approximately 550 full and part-time employees and an annual operating budget of over $20,000,000. The CEO is appointed by an elected Board of Directors and it has a recognizable management structure that is similar to those of private sector firms with both "head office" and "field operations" as major components within the structure. It is the largest non-profit provider of day-care in Canada with an excellent reputation having been consistently voted in media & community ranking surveys as an excellent parental resource. More information can be found on this organization at its website www.plasp.com.

8.3 Planned Participation & Research Boundaries

To maintain consistency, the same five step action research approach previously outlined in Chapter 3 was used for this last action research case study. A summary of the action steps and their expected results including noting any anticipated or agreed limitations on the research scope are noted below:

RESEARCH STEP	OBJECTIVE	ACTION & EXPECTATION
Step 1: Diagnosing	Identify the problem to be addressed.	PLASP had sent three senior executives, including their CEO, to a Conference Board of Canada event at which I made a presentation on BSC-enabled project strategy. Subsequently, meetings were established to explore the potential application of this methodology to PLASP. Similar to previous instances already reported herein, the executive team made a self-diagnosis that the problem as presented did indeed already exist at PLASP. The expectation at this stage of confirming the existence of a commonly defined problem was achieved through dialog and self-diagnosis.
Step 2: Action Planning	Determine how the problem can be solved.	After a subsequent two-part training session (held in March, 2004) on the BSC-enabled PPM methodology, PLASP determined that this approach could work within their organizational

		context and that they believed it would address the problem noted above. In addition, the benefit of clarifying their strategy by using the balanced scorecard would help them validate their overall direction and ensure they were properly directing their limited resources to those projects with maximum benefit – this was a concern in a not-for-profit organization. The expectation of examining the fit between the proposed methodology and the previously diagnosed problem was accomplished by exposing them to a detailed explanation of the process and process steps and letting them determine if the methodology would fit their organization's problem. It was concluded that it did.
Step 3: Action Taking	Intervene in an organizational setting.	The actual work to implement the methodology across the organization began in May, 2004 and is on-going. A finalized BSC was completed in the Fall of 2004 using a cross-functional team drawn from all parts of the organization. Subsequent work around PPM was undertaken and concluded in January, 2005. The specific interventions included attending and observing meetings, facilitating workshops and training sessions, preparing relevant materials, and administering questionnaires and conducting interviews on pre and post-intervention process performance. The study's expectation of installing an organization-wide Balanced Scorecard and new supporting processes and tools, including PPM, was accomplished and the methodology is still in use presently within PLASP.
Step 4: Evaluating	Determination of effect.	To determine if the intended effect of the new methodology was achieved, research efforts were undertaken to consider the pre and post intervention approach used within the organization to select and prioritize projects. In addition, information was collected on participant satisfaction with the new process and supporting conclusions about process efficiency and effectiveness are recorded using questionnaires and interview techniques in addition to direct observation of the firm's employees by the researcher. The expectation was to replicate the findings of the previous public sector case study and determine if the PPM methodology consistently offered similar benefits and challenges while further testing its validity and reliability. These expectations were met.
Step 5: Specifying Learning	Developing or Modifying	Once this case study had progressed to the point where the process implementation was completed

Theory.	(January, 2005), the implications for theory in relation to public sector implementations of the revised PPM methodology were considered by the researcher in relation to the results of the previous case study for consistency of the conclusions contained in this thesis.

It is proposed that the execution of these steps, in this order, meet the test for rigor outlined in the Research Methodology chapter and that supporting conclusions drawn from this case study subsequent to the previous case study may be relied upon to validate the revised PPM methodology's value in practice.

8.4 Discussion of Approach

In this case study scenario, the organization elected for a broadly consultative process within the organization in order to increase the likelihood of employee buy-in. As a result, a cross-functional working team was assembled including representatives from every major department/function in the organization including representatives from the field. The resulting group, while large at 22 members, was tasked with approving the methodology & approach on behalf of the entire organization and developing the strategy map and defining the associated measures. Their scope was to initially stop short of managing the roll-out of their work to the rest of the organization but rather to focus on the initial steps up to the point where the draft scorecard, measures and associated PPM processes were completed. This approach was materially the same as outlined in Chapters 4, 5 and 6 and almost identical in context to the previous public sector case study outlined in Chapter 7. As was previously noted, the only substantial variations are in the language used to define concepts particular to their context none of which the research believes materially varies the theoretical base of the methodology.

As with any approach, there were obvious pros and cons to this approach, which was distinctly different from a top-down management driven process. Of particular note was the need to spend additional time at the front-end of the project ensuring that all team members shared a common understanding and level of competence with regard to:

a) Basic BSC construction & methodologies

b) Common perspectives on measuring strategy & results

c) Agreement this was applicable in the PLASP context

This work took the better part of two months to accomplish (Spring/Summer, 2004), primarily as a result of lapsed time between group sessions which were hard to calendar as a result of the disperse nature of the positions and activity levels represented in the group, geographic dispersion and personal commitments. At the end of this period, there was clear and unanimous group consensus to proceed and the work of building out a strategy map, and its associated measures began.

This involved a fairly traditional approach to defining the strands of the strategy map but with the requisite emphasis on determining how to approach the measurement and accomplishment of strategy in dimensions other than the financial realm taking the most time with the group. By the Fall of 2004, major progress had been made and by November of that year, a draft strategy map was completed by the group at which point we paused for the Christmas holiday period with some "homework" assigned to the group in terms of wrestling with the completing the measures and metrics.

In all group meetings, the researcher provided hands-on facilitation support for the group and acted as an expert on the methodology rather than as a content expert. It was the team's responsibility to be the experts on their organization and its work and my job to ensure this knowledge got extracted, examined, discussed and documented as agreements. This very much fits with the model of action research previously outlined in this thesis.

Subsequently in January, 2005 the group re-assembled and in two sessions completed its remaining work. The results of the work to date (attached in Appendix K) enabled us to shift emphasis to implementation of this work in the field and in new processes & procedures internally to maximize the benefits of the work done to date.

Since action learning, by definition, involves iterations where new insights are applied, the approach in this case study was improved by the previous experiences. For instance, while in Peel it took the struggle of not having definitions attached to the measures to realize we had a gap, at PLASP these were developed concurrently and were deeply detailed. This ensured that the committee's strategic intentions in selecting and defining the measures would be understood and respected across a very large field organization. Examples of these artifacts are provided in Appendix U (the parts of their eventual "Interpretation Guide" related to their strategy map) and in Appendix V (the parts of that same guide related to the measures). It had become compelling clear at this point from the previous case studies that it was not only the articulation of the measures themselves but their explanation in strategic context that eventually allowed other members of the organization to propose and assess projects using the PPM scoring model that would be high

impact. Therefore, developing methods to accomplish this successfully was essential learning during this last case study.

At the time of writing of this thesis, while the work relevant to the thesis findings had been completed, the organization was still continuing to extend its initial work in this area into new frontiers within the organization and the researcher continues to work with and have access to these findings which may assist in a continuation of this line of research in future for publication in academic journals post-graduation.

8.5 Data Collection

Information on this case study was collected in a similar fashion to those previously described. A survey instrument (specific to the work undertaken with this client and attached in Appendix Q) was field tested on five executives for consistent interpretation and then administered to the full project group in January, 2005. A tabular summary of survey results is attached as Appendix R. The surveys design included pre/post elements because of the organizations concern about administering surveys on an on-going basis in an organization where surveys of all types are used constantly. Therefore, at the request of the client, the survey methodology was designed to be a single application (pre/post) comparison viewed retrospectively after the training and implementation of PPM. The advantage in this setting, also seen in the previous case study, was that the cohort undertaking this work remained consistent throughout with no personnel changes. This improves the validity of any pre/post perceptions and controls the issue of inconsistent levels of knowledge about the pre/post conditions of the organization among respondents. While the researcher acknowledges the limitations of this approach, it is also a fact in action research settings that limitations imposed by the organization on the actions of the researcher even when these may impact research findings. However, this is often off-set by an increased significance because the research is undertaken in a real organizational setting allowing the researcher to demonstrate a significant level of relevance in practice rather than remaining at the theoretical level.

In addition, structured interviews (using the script in Appendix B) were undertaken with three key executives (CEO, CFO and VP, HR) as well as with the assigned internal project lead (Director of Field Operations) although there was not organizational support to extend these interviews to field participants because of concerns about workload and the investment of time during a busy seasonal period (end of school). While this provided some opportunity to clarify executive perceptions of the methodology and to gain additional insight into its application within the organization, there were an insignificant number of interviews (4) conducted in total making this less comprehensive than the researcher would have preferred. However, these results are used

to provide anecdotal, supporting or clarifying commentary throughout the discussion of results as appropriate and are still a valid source of insight.

8.6 Analysis of Data & Discussion of Results

A complete summary of all recorded results from the administration questionnaire are included in Appendix R. It is clear from these individual responses that collectively the group felt strongly about the contribution and value of the PPM methodology. For instance, when commenting on the statement "There was an organizational benefit to me participating on this team", 65% of respondents strongly agreed with this statement. When asked if "they would recommend this process to another organization as having high value", more than 50% strongly agreed. Similarly, we find the same issue of the trade-off between process validity and complexity with only 26.3% of respondents strongly agreeing with the statement that "the return from BSC exceeds the effort spent". If we include those simply agreeing, a majority of respondents (73.7%) still felt the process was worthwhile although this finding reinforces earlier warnings from the prior case studies around the trade-off's between complexity and completeness versus realization of process benefits. Of note is that among all respondents, 40% felt that the "most impact" from the intervention was "the ability to state and measure strategy clearly" a finding that correlates to the underlying hypothesis of this thesis and which is central to an effective strategically oriented project scoring and selection method. Similar high ranges of agreement can be found for representative statements such as "I think the process is sound", "I think the process applies to us" and "I think the process will generate results for us".

Cross-tabs between key demographic variables and responses to survey questions are provided in Appendix S. These are presented mostly as a matter of interest and in the interests of completeness rather than because of finding strong correlations between specific demographic factors and respondents views on the process. While there is some variability in terms of tenure or role within the results, they are not significant enough on their own to draw valid conclusions about the methodology on this basis. Conversely, gender can be excluded as a distinguishing factor since there is limited variability on this basis in respondents' answers. There is no attempt in this section to report on every finding; rather, the reader may scan the total results to reveal their own conclusions about the relevance of any particular findings in relation to questions of primary importance to them. Generally, the cross-tab results do not produce any particular finding in relation to the original research propositions that are immediately identifiable.

However, the results of t-tests presented in Appendix T provide the more informative insights from the data sets associated with this case study. These are paired sample tests testing the before/after effect of the methodology in various areas of critical interest to the researcher.

Conclusions in this area are directly relevant to the original research propositions and help validate the model's impact in a real organizational setting. For instance, in reviewing the paired tests, they strongly support the following conclusions:

- There was a clear improvement of the understanding of PLASP's strategy in participants before and after the intervention (p=.001, pair #1)), a finding which is strongly supported by the previous two case studies and was a fundamental hypothesis of the research for this thesis;

- There was a sense that PLAPS's processes were *efficient* before the intervention but an even stronger sense that they will improve further post-implementation (p=.000, pair #2)); similarly there was the same finding with regard to *effectiveness* (p=.000, pair #3);

- There was an absolute sense that PLASP had too many projects underway at the same time prior to the intervention and a sense that this challenge was addressed by the methodology (p=.018, pair #4)

- There was sense among participants that after participating in the intervention they would have the ability to more clearly state which projects were more or less strategic (p=.000, pair #5) which is again a finding that is crucial to answering the research questions posed in this thesis

- There was an improvement in participants understanding of how to identify a strategic gap and propose a project to address this gap (p=.000, pair #6)

The significance tests for the paired samples related to project sponsorship, strategic fit and program impact did not yield results that were significant as seen in Appendix T. These factors do not appear to have been as significantly impacted by the PPM methodology as might have been anticipated although this may be in and of itself a finding of significance about the methodology.

These results are important particularly in relation to the original research questions posed in Chapter 3. The second of these three questions - Does the new methodology address the practical dilemma of its application to the public sector as described? – would appear to be confirmed by many of the findings in this case study particularly validating the existence of the difficulty of establishing appropriate measurable strategy and then connecting project outcomes to these gaps. Similarly, for the third question regarding the degree to which PPM is worthwhile in the public sector would also seem to be positively reinforced by these findings. Of course, establishing this pattern

PLASP does not offer reassurance that this same value or impact can be re-created elsewhere. This constraint is supported by Shadish's (1995) principle of proximal similarity providing that unless the specific set of circumstances (both research method and researcher and the organization's ethonographic composition and structure) were replicated in another setting, generalization of the results to a larger population might not be appropriate. However, the pattern seen in this case study and the previous ones does provide a consistency of thematic patterns around the value of the newly constructed methodology (Shadish's principle of discriminant validity) that would appear to support continued research and development of the approach.

8.7 Summary Findings

Validation of the New Methodology & Evidence of Organizational Impact

The strongest validation to date would appear to be found in this case study. There was a strong demonstration of a positive (and expected) impact in terms of pre and post understanding of strategy, ability to relate project outcomes to that strategy and select and implement projects that would close strategic gaps. Acceptance of the value and contribution of the PPM process were high. In both the supporting survey data and the interviews with key executives, there was strong validation of the proposed approach in its ability to address the organization issue previously identified as existing in the public sector.

Acceptance of Additional Process Complexity

Given that this is the third case study, the researcher attributes some of the decrease in resistance to the proposed methodology on the basis of complexity to be a result of his improved ability to explain and train around the methodology. In addition, by the time the third case study was undertaken, the tools related to implementing the methodology had been significantly tested and enhanced by the contributions of previous case studies. However, there was still some caution expressed by respondents about the trade-off between complexity and process benefits. However, it is difficult in this instance to separate the specific response of this organization from the improvements in the process made intuitively by the researcher as a result of experience gained in two previous case studies. This is a known bias of the action research approach and is not unexpected. It can be controlled for through vigilance on the part of the researcher to ensure it is taken into account in subsequent interventions involving serial case studies (West & Stansfield, 2001) and by making use of structured observation tools to control for researcher bias. These have both been done in this instance.

Support for Modifying Current Theory

This third case strongly validates the impact of PPM process as conceived and proposed for the public sector. It confirms the need for a strategically driven project scoring method to assist with project selection in situations absent of a singular, financially-oriented performance context. There are statistically significant findings around the value of the methodology in terms of clarifying organizational strategy among multiple stakeholders and enabling more sophisticated interpretations of proposed project outcomes in relation to a multi-dimensional and complex strategy. The proposed PPM methodology based on a balanced scorecard framework would appear to provide a valid solution to the problem of project selection in this context that it was intended to address.

CHAPTER 9: THEORETICAL IMPLICATIONS FOR PRACTICE, SUMMARY & CONCLUSION

9.1 Chapter Objective

The purpose of this chapter is to briefly summarize the theoretical implications for practice that may be surmised from the combination of the pilot study and the three subsequent case studies in relation to the original research questions. This is done by re-stating the questions posed in Chapter 1 and summarizing the conclusions drawn with regard to each one.

In keeping with the objectives of a professional doctorate to contribute to the body of knowledge in a manner that impacts practice, the summary is focused on practitioner-related insights. What is presented here are the conclusions and not a re-statement of the supporting evidence which can be found in the body of the thesis. This chapter concludes by highlighting some unintended findings or interesting threads deriving from the research as well as suggestions for future research which could be undertaken to continue to improve the methodology in practice.

9.2 Relationship of Findings to Improvements in Practice

When this research began it was based on the anecdotal premise that the portfolio project management (PPM) approaches as currently defined appeared to be inadequate to address the complexities of project selection and portfolio management issues in most organizations today. Particularly, if project scoring was based exclusively on financial efficiency it was likely sub-optimizing strategic outcomes in a private sector setting by definition. If this practice is then translated into the more complex strategy making context of a public sector organization, it becomes even more inappropriate as a project selection method. This problem arises from the underlying assumption that projects which maximize return and minimize financial risk (an underpinning of the original portfolio management approach adopted by the project management profession) are always the most strategically appropriate projects for an organization to do. This may be a false premise in some instances as seen in the earlier case studies.

When we explore the use of PPM among experienced project managers presently, we get decidedly negative responses generally. The approaches generally in use today were seen as too complex for the limited benefits they appeared to deliver once implemented. This intuition was further confirmed by the pilot study of experienced PM's who clearly share this view establishing that the problem being explored was real and being experienced frequently. Generally, the researcher feels safe in concluding that without substantial improvements, most organizations would not often chose to use PPM in its current form and those that did may risk a failed

implementation arising from possible gaps in theory. Of course, any trade-off between simplicity and effectiveness can be dangerous and it is important to remember that any portfolio management system at the enterprise level is bound to be seen as more complex and will take more time and effort from management than single or even multiple project management practices applied enterprise-wide.

The inherent issues of PPM can probably only be addressed by improving the practicality and likely outcomes using a revised methodology and the proposal contained in this thesis is but one of a possible range of alternative approaches that could be considered as possible improvements to practice. In the researcher's view, adopting this changed approach would more readily substantiate the investment of time and energy needed in most organizations to install a PPM process in addition to improving project outcomes by ensuring they are more strategic.

The researcher also concluded while reviewing the literature for best practices that the majority of what was written about the implementation of PPM tended to focus on relative project-to-project comparisons rather than on assisting the company to select and manage a truly strategic portfolio of projects that would ensure the successful execution of strategy. This too has been confirmed in both the pilot studies and the subsequent case studies. Therefore, the major contribution of this research is to have proposed and validated in both theory and in practice that the use of a strategic scoring model may enhance both the understandability of PPM for most firms and also improve the probability that the portfolio of projects selected will be optimized strategically. This is a significant breakthrough that may help organizations deal with the continuing issue of strategy execution that many appear to struggle with.

Particularly the private sector case study highlighted what appears to be an important phenomenon in business today: in the absence of specific models that allow the firm to measure the contribution of specific projects to strategy, it appears that easier but non-strategic criteria become the method used to select projects. The most obvious example of this is the prevalence prior to the adoption of PPM of using sponsorship as method of picking projects to be done. While this is not to suggest that most executives are not competent and committed, it would be fantasy to suggest that merely on the basis of personal judgment do the merits of a project rise to the top of the firm's priority list. The researcher feels strongly that, having spent a number of years with organizations now working on this issue that most firms who do not have any kind of portfolio management system in place would benefit from almost any measurable model that embedded strategic versus personal preferences into the decision-making process for project selection and activation.

The public sector case studies touched on a common problem found in this sector: the overwhelming number of initiatives or projects that are planned for completion by central agencies or bodies in comparison to available capacity in the field. Given the higher level of resource constraints in the public sector, it is not a surprise that this emerged so clearly as a challenge. If time and resources permitted, it is clear that additional research would likely also uncover a similar problem in some private sector situations as well. Again, the adoption of PPM helps address this problem but perhaps the benefits in this area have been under-achieved because the scoring models were relative instead of absolute. It is clear that it is much harder to stop or deny a project simply on the basis that is offers a relatively lower return than others. The only way to do this is to fall back on a resource-constrained view and simply not do the projects which fall lower on this prioritized list. This creates a massive incentive for project sponsors to attempt to manipulate either the scoring of their individual project or the cut-off of available resources to ensure their projects get selected and approved.

Concurrently, it puts the question of capacity into the position of defining organizational strategy. This is absolutely sub-optimal although seductively simple as a method of abandoning true strategic decision-making. If we limit projects we select and approve on the basis of budget or their use of scarce resources at a point in time, we may choose to complete projects that consume current resources efficiently over higher load projects but which might have ultimately been more strategic and effective for the organization to complete. At the project level this is similar to the classic efficient versus effective trade-off's we see in other areas of business. To be effective, we must abandon the notion of capacity as a strategy-defining criterion. This point is best illustrated graphically and appears as figure #6 below.

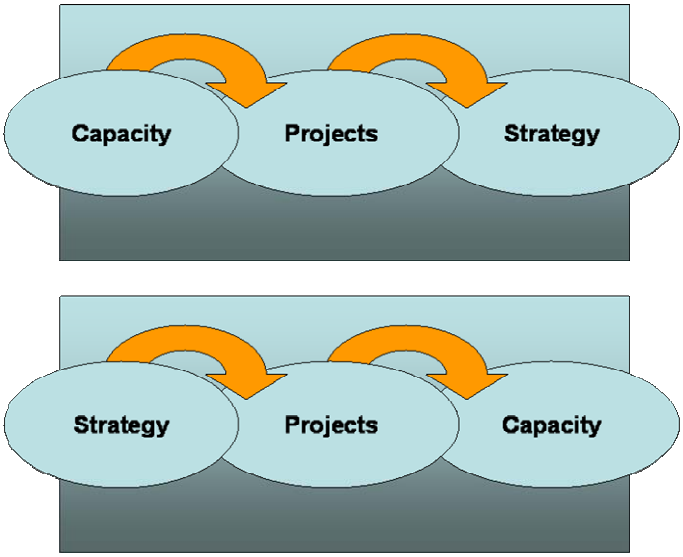


Figure #19 – Strategy Making Trade-Off Decisions Arising from PPM

Putting the organization into a "scrum" on the basis of arguing for access to resources is non-productive and political in nature; it is unlikely to ever yield an optimal result. In fact, when we combine this with the fact that the influence and power of the sponsor is often a factor in many organizations in situations like this, we compound the negative result. By using a method that demands a neutral justification of the project's merits against pre-established criteria of strategic contributions, it is more likely that the internal conversation will shift to a more positive focus on making sure that all the strategic opportunities available to the organization can be accomplished. This is a tangential but important outcome of using the proposed PPM methodology.

9.3 The Resolution of the Research Questions

With due regard for the concerns about rigor and reliability dealt with earlier in the study, it would seem justified to conclude that three initial research questions posed by the study have been properly informed by the study and that conclusions can be drawn as a result. In summary, the original research questions presented in Chapter 1 were:

1. Are the proposed changes in approach related to using a balanced PPM scoring model theoretically sound?

2. Does the proposed methodology address the practical dilemma of scoring non-financial strategic project outcomes in a public sector context?

3. Does this make it more worthwhile for practitioners to implement PPM practices in the public sector as a result and why?

In addressing the research undertaken to explore answers to each of the three questions separately, it was also important to identify concurrently the implications for theory that arise as a result of having completed this research. To help clarify the implications for theory, it is useful to return to the original research propositions associated with each of the three research questions. These were noted in Chapter 1 as follows:

With regard to research question #1 (and its associated research proposition), the research purports that the findings of the three case studies support the usefulness of a revised PPM scoring model based on the Balanced Scorecard framework. Further, while not specifically identified as an outcome due to time and cost constraints on this research (and the difficulty of conducting longitudinal studies of this nature) it is believed that the application of this methodology will, in the long-term, prove useful to assist the organization to strategically optimize its portfolio of projects.

This was confirmed by workshop participant feedback, interviews with key executives and the limited use of specific questionnaires comparing pre/post intervention attitudes.

Similarly, for research question #2 (and its associated research proposition), there are clear indications from the case studies reported herein that the organizations in question were clearly more able to measure the strategic contribution of a project in measurable terms after the intervention to train them on the proposed PPM methodology than they were previously. This provides a viable alternative to organizations using only financial performance in their selection and approval of projects today that is still robust and reliable, but that is more broadly based on strategic contributions rather than purely based on financial efficiency. In particular, participants reported a clear sense of which projects were "strategic" after being exposed to the methodology than when they were not. It was also clear that study participants were more comfortable with taking previously ambiguous strategy and turning it into measurable outcomes that could be linked to project outcomes after the interventions were complete.

The rationale for accepting the value of the proposed new methodology based on the case studies is that current approaches clearly fail to take into account non-financial measures rendering them unusable correctly in a public sector context. Thus its failure as a general theoretical framework requires modifications to address these gaps. While no assurance can be offered that the current proposed change in methodology is perfect with respect to strategic optimization and resolving this challenge, it is clearly superior to the status quo financial models currently in use and provides a starting point for future researchers to validate the long-term potential of balanced scoring models as a powerful addition to existing strategic project management tools.

Research question #3 is more subtly complex to address than the first two. While the research undertaken clearly shows benefits from the new methodology and validates its strategic contribution, there are also clearly costs associated with this methodology that are not inconsequential. While early results are neutral as to a final conclusion on this point, the research surmises that the costs and complexities of the revised methodology suggest its use will be limited to larger, global organizations and very large public sector organizations where the sheet volume and complexity of the project prioritization process demand a sufficiently robust method that the benefits outweigh the costs of this approach. Again, firm conclusions in this area must, by constraint of time and cost, be left to a future study that would potentially enable the investigation of the specific criteria that would suggest the value of this methodology in comparison to the scope and scale of the various projects types being prioritized by any organization as an indicator of the appropriateness of this approach longer-term.

Consequentially, the researcher is not able to completely address the issues of methodology cost and complexity in comparison to its benefits using empirical data or even substantially reliable qualitative evidence so this question remains unsubstantiated at this time. However, the anecdotal evidence based on a substantive number of follow-up interviews conducted with study participants, and the continued use of the methodology in all three organizations post-study (up to three years later) would suggest that these particular organizations had concluded that the benefits outweighed the costs of the methodology. All three reported a high degree of satisfaction with these efforts and the results of their participation in the study.

Further anecdotal supporting evidence may be obtained from the researcher's own consulting practice. The definition and implementation of this methodology at several reference accounts has enabled me to continue to solicit other firms to adopt this approach and since the writing of this thesis, three more major firms (2 in Canada and 1 in the US) have begun the initial stages of implementation of this approach and this work could result in additional ability to report more successful case studies to validate the approach.

9.4 Unsubstantiated Additional Stated Benefits of the Revised Methodology

During the research, other potential benefits were mentioned by study participants, however, given they arose post-facto they would not be confirmed beyond being identified. These benefits cover a broad spectrum of practice areas in Project Management and are noteworthy because longer-term, if proven in future studies, they become additional value-add outcomes that arise from the proposed change in PPM methodology.

To summarize them efficiently, they appear in a table below. Each includes a selected comment from one of the two case studies that helped highlight these for the researcher at the outset.

Table #3 – Ancillary, Unproven Benefits Summary

Interview Comment	PM Practice Area	Possible Impact	Possible Benefits
"I now begin to conceptualize projects from a strategic perspective from the outset rather than waiting till the project has been planned and then considering its impact"	Project Initiation	It would appear that participants begin to initiate projects differently once exposed to PPM. From the outset they begin to reflect on the strategic contribution of project ideas before investing time & money into defining	Using the strategic filter at the project initiation stage may reduce the investment of resources to define projects that ultimately are not sufficiently strategic to proceed.

		the initial business case as might have previously been the case.	
"The flow of projects has been reduced to a manageable level now…thanks!"	Project Approval	By forcing capacity planning into the project activation process, organizations are forced to consider not only project priority but their ability and the availability of resources to execute projects more carefully.	Probably reduces spurious projects but also ensures that projects are activated only when resources are available to do so regardless of approval or priority.
"Communicating business objectives to my project teams is much easier with this new method although it does take more time initially to put in place"	Project Communication & Reporting	Commonly, participants involved in project leadership often detect an improvement in their ability to communicate strategic business objectives to their project teams. Also those on projects report that because the strategy statements and measures remain constant but the projects they work on may change, there is limited re-learning required when moving between projects.	Since business objectives get clearly and consistently communicated, this may allow staff to more quickly move between projects and realize the connection between their activity and strategy improving productivity and clarity of mission.
"As the CIO, I no longer argue about getting approval for more resources—I now argue about how fast I can actually add them!"	Project Staffing	Traditionally, staff organizations have been viewed as a cost centre and investments in these functions were controlled or limited by this perception. In addition, often the leaders of these organizations found themselves perpetually under-staffed and always feeling like they had to defend current performance (often seen as inadequate but mostly because more	Since PPM drives to a strategic view of project approvals rather than a resource-constrained view, very different approaches to these kinds of decisions result. Most often, resource loads can now be directly predicated on the approved project list ensuring more balance between supply and demand in these functions

		work was given than resources were available to complete it) while seeming to always ask for more staff.	and improving morale and performance.
"Since I cannot be everywhere, every time a decision has to be made, I now rely on the proxy measures to guide my staff to make the right call…"	Project Quality	Projects consist of many hundreds of thousands of individual decisions, ideally aligned to create the ultimate output. However, issues can arise when project staff do not share a common set of parameters to make decisions. Historically, this has sometimes led to project leaders trying to centralize project decision-making but at the detriment of speed of execution. PPM now offers an alternate approach to generating consistent decision-making frameworks that are clear and measurable.	When decision-making becomes consistent, exception reporting goes down and productivity goes up. The ability of project team to make more right decisions more often is a known factor that drives up project quality.
"The relationship strains of the budget scrum are no more!"	Budgeting	In many organizations the planning and budgeting cycles collide in unproductive ways. Often the two are actually in contention as budgets drive strategy rather than the other way around. This was frequently identified both in the public and private sector case studies by executives who did not always feel previous methods used were all that productive.	Having the ability to reduce the interpersonal strain of executive debate by depersonalizing it likely renders the process more "user-friendly" and, although the subject matter remains the same, the change in approach may translate to executives feeling better about the PPM method as tool to have these trade-off discussions.

It is not completely clear to the researcher if these perceived benefits could be consistently confirmed more broadly. Nor is it clear that every executive sponsor, project manager or staff member may see these in the same way because they were isolated comments specific to the organizations in the case studies. However, there is value in reporting these comments. It is possible evidence of additional benefits the revised methodology might offer in practice that can offer other researchers the potential to carry these themes forward into their own future research efforts to confirm or deny these benefits over time.

9.5 Suggestions for Future Researchers

It may be of most importance that the additional threads of research identified above (and elsewhere) be explored more thoroughly and consistently. Although anecdotal evidence can be the starting point of curiosity about current practice, nothing except in-depth, systematic research can help us as a profession uncover and define new best practices to be incorporated into revised methodology. Constantly learning and redefining is one of the very fundamental aspects of professionalism and this thesis has raised sufficient future questions that I hope other researchers in the area will be enticed to begin exploring these questions with me.

For instance, it is clear that the scope of the research should be expanded geographically. While the global project management profession has grown exponentially in recent years, it is not clear that different regions of the world necessarily always agree on the definitions of best practices or standard methodologies. Therefore, this problem may currently be occurring similarly or differently elsewhere, and could even be under study and yet this lack of co-ordination may not be optimal in terms of defining best practice. Therefore, if this research can be validated in other regions of the world as occurring in the same way, it may be possible for everyone to agree on standardized solutions from the outset of the identification of the problem rather than trying to converge at a later point from among a variety of possible solutions.

It would also be prudent for future researchers to explore the relationship between selecting more "strategic projects" (those that have deliverables that are less clear than a pure financial return) and see if this elevates risk. This notion has previously been identified (for example Weill & Broadbent, 1998) but it is not clear if the further demand to articulate clearly measurable strategy (as required by the BSC) would not off-set some of the potential for increased risk in a project portfolio that was not selected purely for its financial efficiency. However, to complete this research, there must first be a movement within organizations to select and execute these projects before the question of additional risk versus additional reward can be explored. Therefore, the resolution of this important question is left to the future.

Finally, the intriguing combination of the established balanced scorecard methodology and current standard project management methodologies are just beginning to be explored. This thesis is at the forefront of a group of IS/IT researchers who are deeply intrigued by this powerful combination. The ability to install strategic perspective into all aspects of project management practice cannot be underestimated for its influence on business results and to off-set the rather negative reporting of the consistent and spectacular failures of projects like Taurus and the Denver International Airport Baggage system. While not intended, it seems as if a collateral impact of the proposed revisions to existing PPM methodology also seem to overcome the internal reluctance in some organizations to deal with failing projects more quickly.

Since a common complaint of senior management, and especially CEO's, is they often perceive more talk about the promise of project management than they see results because of these kinds of organizational responses, solving this conundrum may perhaps allow our profession to be seen as more strategic and to define its contribution in more strategic terms. Thus we truly become part of the solution rather than being perceived as part of the problem!

Revisions to PPM as proposed herein seem able to offer part of this solution – but certainly the scope of this study is far too limited to solve all of the issues connected to this perception; so many more questions in this area remain unexplored and offer rich future potential of insight for researchers in the field.

Therefore, it is my hope that more and more members of the profession will explore these intersections between the two methodologies and that fellow academics will take up the research opportunity to push the limits of this combination to its fullest future potential.

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FCC Project Practices Questionnaire

All answers to the following questionnaire are anonymous. While this survey has the full endorsement of the company, you are not obligated to participate. However, contributing your opinion is valuable and will assist in assessing current project management practices at various companies around the world to compare and contrast results. Your answers to this survey will not be disclosed to anybody except for publication in the aggregate as part of an overall study. Thank you in advance for your assistance. You may return this questionnaire via e-mail or in printed form as you wish.

Survey Date:_____/_____/_____
DD MM YYYY

Demographic Information

This information is being collected purely for the purposes of this study. Only factors that are of importance to the study are being collected. All information you provide is voluntary and will not be used for any other purpose. Please circle the appropriate response and then transfer your answers to the bubble sheet if one is provided.

1. Please tell us how many years of full-time job experience you have:

    a) Less than 1 year
    b) 1 – 4 years
    c) 5 – 9 years
    d) 10+ years

2. Please tell us how how long you have been employed with FCC:

    a) Less than 1 year
    b) 1 – 4 years
    c) 5 – 9 years
    d) 10+ years

3. What is your gender?

    a) Male
    b) Female

4. How long have you been assigned to these current project(s)?

    a) Since inception
    b) Joined mid-point or sooner
    c) Joined mid-point or later
    d) I am not assigned to this project full-time
    e) I supervise/sponsor projects only

5. Overall, what is your normal role in projects?

    a) Technical Resource/IT Specialist
    b) Project Administrator/Project Staff

c) Project or Program Manager
d) Functional Executive/Sponsor

Project Experience Questions

Reflect on your **last** project(s). In your experience and based solely on your judgment, we would like you to rate your company's overall performance in the following areas.

6. What was your perception of project's "on-time" performance?
    a) Very Behind Schedule
    b) Somewhat Behind Schedule
    c) More or Less on Schedule
    d) Somewhat Ahead of Schedule
    e) Very Ahead of Schedule

7. What was your perception of project's "on-budget" performance?
    a) Very Over Budget
    b) Somewhat Over Budget
    c) More or Less on Budget
    d) Somewhat Under Budget
    e) Very Under Budget

8. At the end of the project(s), what was your perception of how project deliverables aligned with the company's execution of its planned strategy?
    a) Very Low Strategic Alignment
    b) Somewhat Low Strategic Alignment
    c) More or Less Expected Strategic Alignment
    d) Somewhat Higher Strategic Alignment
    e) Very High Strategic Alignment

9. As the project(s) progressed, did your sense of the project's strategic alignment change from the beginning to the end of the project?
    a) My sense of the project's importance decreased.
    b) My sense of the project's importance remained the same.
    c) My sense of the project's importance increased.

10. As the project(s) progressed, did the clarity about assigned goals and objectives change over time?
    a) My clarity about project goals and objectives decreased.
    b) My clarity about project goals and objectives remained the same.
    c) My clarity about project goals and objectives increased.

11. Rate the effectiveness of overall communication about the project(s):
    a) Very Ineffective
    b) Somewhat Ineffective
    c) More or Less Effective
    d) Somewhat Effective
    e) Very Effective

12. As the project(s) progressed, did the effectiveness of overall communication about the project change over time?
    a) The communication effectiveness decreased.
    b) The communication effectiveness remained the same.

c) The communication effectiveness increased.

Influencing Factors Ranking

We are interested in the perceptions of executives, project managers and project team members about those factors that most influence project performance. Please provide your opinion by carefully reading and ranking the following lists of factors as you see them.

13. If your project could only deliver ONE of the following, which would you prefer to be?
    a) On-time
    b) On-budget

14. If your project could only deliver ONE of the following, which would you prefer to be?
    a) On-Quality
    b) On-budget

15. If your project could only deliver ONE of the following, which would you prefer to be?
    a) On-time
    b) On-Quality

Risk Management/Project Tracking & Control

We are interested in the perceptions of executives, project managers and project team members about those factors that are used to approve and launch projects. Please provide your opinion by carefully reading and ranking the following lists of factors as you see them.

16. On what basis are project(s) conceptualized and approved most frequently within the organization today?
    a) Project Duration (how long or short the project will run)?
    b) Project Cost (how much it is budgeted for)?
    c) Project Risk (will we be able to actually complete the project)?
    d) Project Strategy (is this the best project for us to be doing)?
    e) Project Sponsor (who is proposing that we complete the project)?
    f) Other:_____

17. If you could choose from among those factors noted in question #16, how SHOULD projects be conceptualized and approved within your organization?
    a) Project Duration (how long or short the project will run)?
    b) Project Cost (how much it is budgeted for)?
    c) Project Risk (will we be able to actually complete the project)?
    d) Project Strategy (is this the best project for us to be doing)?
    e) Project Sponsor (who is proposing that we complete the project)?
    f) Other:_____

18. At any given point in time, if your organization could choose to do only ONE of a group of projects because of some limitation, what primary factor would be used to make that decision normally?
    a) Project Duration (how long or short the project will run)?
    b) Project Cost (how much it is budgeted for)?
    c) Project Risk (will we be able to actually complete the project)?
    d) Project Strategy (is this the best project for us to be doing)?
    e) Project Sponsor (who is proposing that we complete the project)?
    f) Other:_____

APPENDIX B: FCC CASE STUDY STRUCTURED INTERVIEW GUIDE

Pre-Process Questions (used with case study executives to elicit commentary on their current "as is" state and normally administered right after they have been exposed to a basic management presentation on the PPM methodology as presented in Appendix H): The interviews were audio taped by the researcher are retained by the firm for two years (based on Canadian privacy legislation). This is addition to detailed notes kept by the researcher for reference in this thesis although all participants were assured that their individual identities would not be associated with specific comments in order to ensure a high level of authenticity in their responses.

1) In your opinion, how are projects that (insert company name here) works on selected and prioritized today? Is this effective. If so, why? It not, why not?

2) What aspects of project management within (insert company name here) are working well today? Which are not working as well? What would you like to do about them?

3) Given what you have seen of the proposed PPM methodology, what aspects of this intended process seem of most value to you from your vantage point as an executive in the firm? Why?

4) What are the potential barriers or issues during implementation that you feel we have to watch out for? What can be done to limit these in advance to ensure we can successfully design and launch the new PPM process internally?

5) Is there anything else you wish to comment on at this time that you feel would be helpful or useful for me to know?

Post-Process Questions (used with same case study candidates to elicit commentary on their reaction to the newly installed "to be" state, administered near the end of the business process redesign process). Results of these interviews were audio taped as noted above. This is addition to the notes kept by the researcher for reference in this thesis. All participants are assured that their individual identities would not be associated with their specific comments in order to ensure a high level of authenticity in their responses.

1) In your opinion, how are projects that (insert organization name here) works on selected and prioritized now using PPM? Is this more or less effective than before? If so, why? It not, why not?

2) What aspects of project management within (insert organization name here) are working better today? Which are not working as well? What else can we do about that?

3) Given you now have experience with the PPM methodology internally, what aspects of this process seem of most value to you from your vantage point as an executive in the firm? Why?

4) Given what you expected when we began this process re-design, what turned out to be the biggest opportunity? Was it what you anticipated? What was the biggest barrier? Did we solve it successfully? Why or why not?

5) Is there anything else you wish to comment on at this time about the process we have just completed? Would you do it again? If so, why? If not, why not?

PORTFOLIO PROJECT MANAGEMENT (PPM) SURVEY

The following survey will assist us in determining the degree to which this methodology is being applied in corporate and non-profit sector project management. The results will be reported at the upcoming conference for which you are registered and also published. If you wish to answer anonymously, please do so. If you would like a copy of the survey results for your own use (to be produced early in 2004), please ensure you complete the following contact information section. We appreciate your professional opinion in advance.

Name: _____ ***NOTE:***

Organization: _____ ***OPTIONAL***

E-mail: _____ ***ONLY***

DEMOGRAPHICS:

The following information is being collected purely for research purposes and to assist us in our analysis of industry practices. All responses to this, and every other part of this survey, are strictly confidential and will not be reported or released on an individual basis.

Current Position Title: _____(full position title only)

I Currently Report to: _____(position title only, not names)

Province of Residence: _____

Please indicate the number of **years** of **tenure** you have in **THIS** position (including this year):

○	○	○	○	○
1 –2 yrs	3 –4 yrs	5 - 6 yrs	7 - 9 yrs	10+ yrs

Please indicate the number of **years** of **experience** you have in the **field of project management** specifically:

○	○	○	○	○
1 –2 yrs	3 –4 yrs	5 - 6 yrs	7 - 9 yrs	10+ yrs

Please indicate the number of **years** of **full-time job experience** you have in total (any occupation):

○	○	○	○	○
1 –3 yrs	4 –7 yrs	8 - 10 yrs	10 -19 yrs	20+ yrs

Please indicate the your **highest** level of **completed** education:

○	○	○	○	○
High School	College Diploma	Undergraduate Degree	Masters Degree	Ph.D.

Are you a certified project manager (PMP)?

○	○
Yes	No

KNOWLEDGE BASE:

You may or may not be familiar with Portfolio Project Management Practices. You may or may not be that familiar with managing projects. This is not important in and of itself. We are simply interested in exploring to what degree knowledge of this methodology is or is not currently present in practitioners. Please answer carefully.

Are you currently familiar with standard **Project Management** concepts & practices?

○ Yes ○ No

If **YES,** Please rate your own level of knowledge about standard **project management** methodologies:

○ Limited Knowledge ○ Some Knowledge ○ Sufficient Knowledge ○ Good Knowledge ○ Extensive Knowledge

Are you currently familiar with standard **Portfolio Project Management (PPM)** concepts & practices?

○ Yes ○ No

If **YES,** please rate your perceived level of knowledge about standard **PPM** methodologies:

○ Limited Knowledge ○ Some Knowledge ○ Sufficient Knowledge ○ Good Knowledge ○ Extensive Knowledge

If **YES,** please indicate your perception of how complex you find standard **PPM** methodologies:

○ Very Simple ○ Somewhat Simple ○ Neutral ○ Somewhat Complex ○ Very Complex

Do you feel that you need to learn more about standard **PPM** methodologies?

○ Yes ○ No

Why or why not?_____

_____

If your organization has an internal project management methodology in place, does it include components of a portfolio management process to assist with strategic project selection and activation?

○ Yes ○ No

If **YES,** and based on your knowledge of standard PPM practices, how effective and useful is your current implementation of **Portfolio Project Management** practices:

○ Poor Results ○ Some Results ○ Sufficient Results ○ Good Results ○ Extraordinary Results

CURRENT PRACTICES:

This section is purely about your perceptions of how your organization does in a number of areas related to Portfolio Project Management (PPM). By decomposing how organizations are doing in particular areas it may give us insight into why or why not PPM might be an effective tool for the management of multiple projects.

1	Completely Disagree
2	Somewhat Disagree
3	Neutral
4	Somewhat Agree
5	Completely Agree

For each item identified below, circle the number to the right that best fits your judgment of your current status. Use the scale above for your answers.

Description / Identification of Survey Item	Scale				
1. Our organization's strategy is clear and concise.	1	2	3	4	5
2. We have a way of measuring the achievement of our strategy that is clearly understood.	1	2	3	4	5
3. The cost of a project is the primary consideration in the project approval process.	1	2	3	4	5
4. The time to complete a project is the primary consideration in the project approval process.	1	2	3	4	5
5. The sponsor/department proposing a project is the primary consideration in the project approval process.	1	2	3	4	5
6. The strategic contribution of a particular project is the primary consideration in the project approval process.	1	2	3	4	5
7. We prioritize projects for execution when we approve them.	1	2	3	4	5
8. We have a method to measure the actual realization of the benefits of any project that is approved.	1	2	3	4	5
9. We use a "registered list" of projects to track our capacity availability and to determine activation order.	1	2	3	4	5
10. We have a capital allocation process that restricts the funds available to do projects in any given period.	1	2	3	4	5
11. We can always get funds for a strategic project if we can demonstrate it has tangible benefits.	1	2	3	4	5
12. We have regular project reviews to keep projects on track.	1	2	3	4	5

	Strategic Alignment	Unique Competitive Advantage	Protective Competitive Respsonse	Risks	Organizational Alignment	Total	Priority
Project	30%	20%	20%	10%	20%		
Sample Project A	H	M	M	L	H		
	5 x 30	2.5 X 20	2.5 X 20	0.5 X 10	5 x 20	335	2
Sample Project B	M	M	M	L	L		
	2.5 x 30	2.5 x 20	2.5 x 20	0.5 x 10	0.5 x 20	190	4
Sample Project C	H	H	H	H	H		
	5 x 30	5 x 20	5 x 20	5 x 10	5 x 20	500	1
Sample Project D	L	H	M	M	L		
	0.5 x 30	5 x 20	2.5 x 20	2.5 x 20	0.5 x 20	200	3

Rating Scale:
H = High = 5
M = Medium = 2.5
L = Low = 0.5

This BSC-enabled project scoring model requires those proposing projects to score in a range from "very direct" to a "weak" based on the projects contribution to the strategic measures associated with each of the four balanced scorecard dimensions. Again, this modification to traditional PPM scoring models requires that the project be ranked in relation to *strategic contribution* rather than on the relative basis of comparative *project returns*. This suggests that the firm has set targets (metrics) for each measure contained in the four quadrants so that it *knows in advance* what strategic outcomes it wants to achieve and then sets about planning and approving projects to reach these targets in advance thus setting the stage for more certain execution of the strategy.

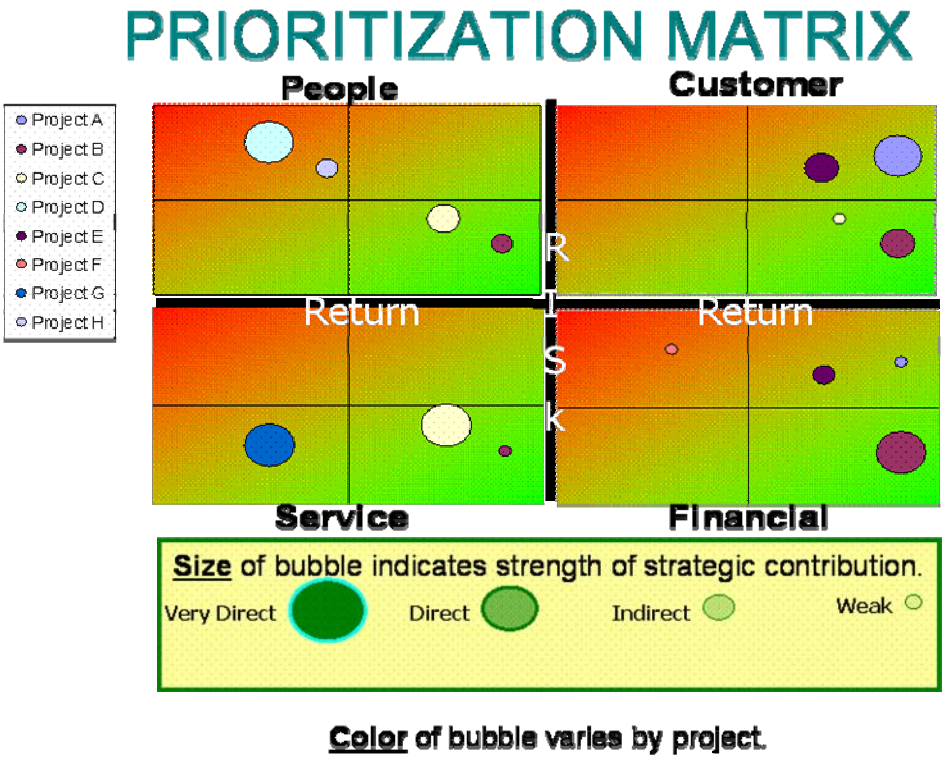
LEGEND Degree of contribution to measures in strategy statements		PROJECT	PEOPLE People Index, Innovation Index, Learning Index	CUSTOMER Customer Loyalty Index, Loan Portfolio, Venture Captial, Management Practices	SERVICE Customer Experience Index, Service Provision Index/Efficiency Ratio	FINANCIAL Return on Equity, Debt-to-equity Ratio, Efficiency Ratio	Total
Very Direct	25						
Direct	12	Project A		25		2	27
Indirect	5						
Weak	2	Project B	5	12	2	25	44
		Project C	12	2	25		39
		Project D	25				25
		Project E		12		5	17
		Project F				2	2
		Project G			25		25
		Project H	5				5

APPENDIX E-1: SAMPLE TRADITIONAL PPM SCORING MODEL

Most traditional PPM scoring models tend to focus on the relative rankings of projects to each other on the basis of standard measures of financial return (NPV, Payback or similar)—most notably, they often also rely on an assessment of perceived project risk as well in order to produce risk-adjusted rankings of the most financially efficient projects. Using this method, a firm selects only those projects which perform relatively better but still not with any assurance that its strategy will be achieved if those highly ranked projects are executed because additional dimensions of the corporate strategy will not be reflected in the scoring of individual projects – and there is no certainty that sufficient projects will be activated to achieve anything other than the firm's financial objectives as a result.

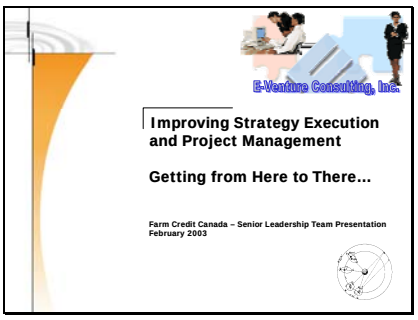
Project	**3 Yr. NPV**	**Payback**	**Cost**	**Duration**	**Return Ranking**	**Risk Ranking**
A	5	3	5	5	1	3
B	1	1	3	3	4	3
C	3	5	3	3	2	1
D	3	3	5	1	3	5
Project Scoring Model	>500K = 5 >250K = 3 >100K = 1	<= 1 year <= 2 years <= 3 years	>$ 1M >$500K >$100K	<=6 mos <=12 mos >24 mos		

This matrix allows for the plotting of any individual project on the basis of its risk adjusted strategic contribution. In this particular case study example, they have slightly modified the labels of the four traditional dimensions of the Balanced Scorecard. Using four highly specific strategy statements (one per dimension) with associated measures, a project scoring model was easily developed by the firm to complement their balanced scorecard – by combining the two methodologies, it becomes possible to determine the relative strength of strategic contribution in each of the four areas of the balanced scorecard for each project being considered (from "weak" to "very direct" as noted below the graphic). This provides the "return" axis in each quadrant. Similarly, a traditional assessment of risk for each project is done and scored thus providing the "risk" axis. It is then possible to graph the outcome of this analysis as shown below to produce a risk-adjusted balanced project portfolio and is a tool that allows management to graphically interpret the results of the PPM process.



Note: the interpretation of this graph requires that you think of the centre as "0,0" and that each quadrant moves outward from this point and that risk and reward each increase as you move from the centre to the extremities of the quadrant.

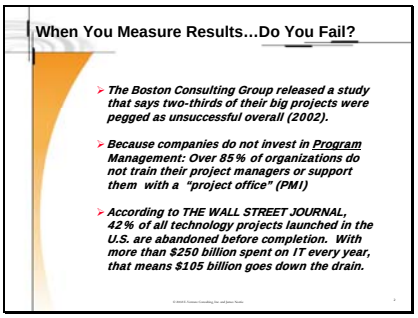
Slide 1



Those attending the presentation included the CEO (Mr. John Ryan) and all of his direct-reports (14 at the time) all of whom held the title of Vice-President, Senior Vice-President or Executive Vice-President as appropriate.

Also in attendance were key staff from the newly established "Corporate Project Management Office" (CPMO) which was ultimately the group that was going to be responsible for the implementation of PPM internally within the firm.

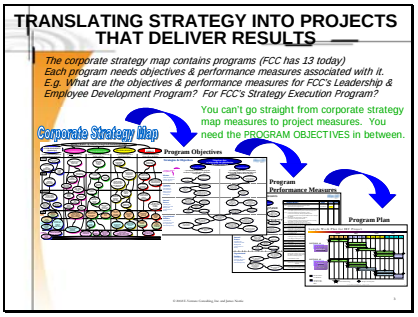
Slide 2



There are many other sources to back-up these points (Taurus, etc.) and these are generally not statements that most executives will argue with…the conclusion is quite simply that often strategic projects get started and then fail.

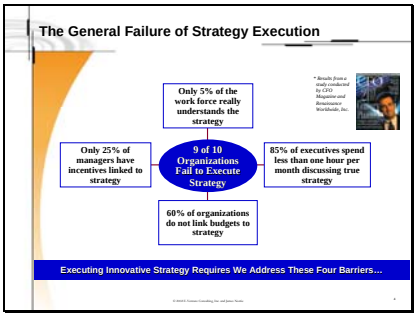
The other important point on this slide is just what exactly can we do to better determine what is a "failure" and what is a "success" since, generally speaking, project charters are artificial artifacts created by the business executives involved, what then actually helps project measurement move from the abstract to the concrete in such as way as to promote more successes than failures?

Slide 3



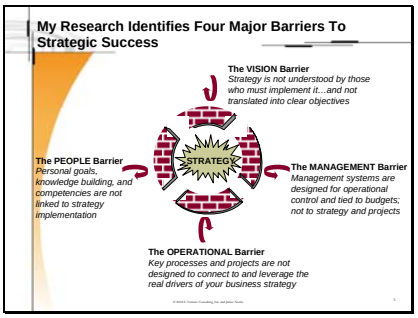
As noted in the slides, FCC's then current programs were as follows (in rough order of priority based only on a "quick & dirty exercise" done within the SMT (FCC lingo for the senior management team):
CRM Program
IT Performance Program
Optimize Performance Program
Alternate Channel Program
Leadership & Employee Development Program
Strategy Execution Program
Alliances Program
Business Services Program
Customer Loyalty & Acquisition Program
Innovative Culture Program
Knowledge Management Program
Visibility Program
Venture Capital Program

Slide 4



This just helps establish with the executive team that strategic gaps are quite often created from corporate practices that cannot be assumed as effective…

Slide 5



In general, I have found that grouping barriers to strategy execution into these four basic headings helps focus executives on the required conversation rather than on definitional debates.

In my consulting and research experience, most executives in a room can self-identify with one or more, or all of these barriers and give examples from within their own divisions/functions.

Slide 6

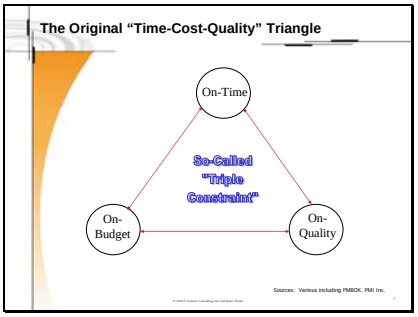
When challenged to determine how their internal project management processes and methodology in use today, and particularly the selection of the overall project portfolios, ties to strategic measurement there is normally a gap inside most organizations in my experience. Mostly this has to do with the fact that often strategy is not all that measurable or perhaps not expressed in sufficient detail that individual projects can be compared to those strategic measures.

This results in most scoring models, if they are present, to be use in relation to other projects. All this does is generate the projects which are, relatively speaking, the "best" for any particular organization to do from among those that have been proposed.

What is missing then is step to determine what measurable improvements need to occur (strategy) and then to plan projects (execution) to ensure that all facets of the company's intended strategy have been covered off. This new "strategic portfolio" is then ranks and compared to available resources and the corporate project management office tracks the execution of these projects to ensure that they remain on track. This focus ensures the firm' strategy has a higher probability of being successful and measurable executed as a result.

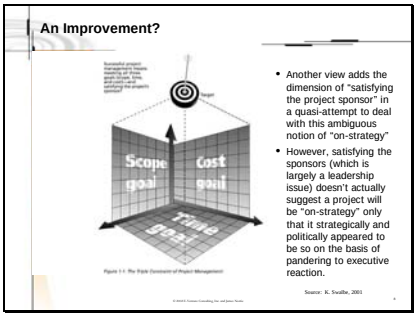
This process of linking strategic measurement with project portfolio selection and management goes well beyond current PPM methodologies and helps provide the "missing link" to make this process management and useful within the firm.

Slide 7



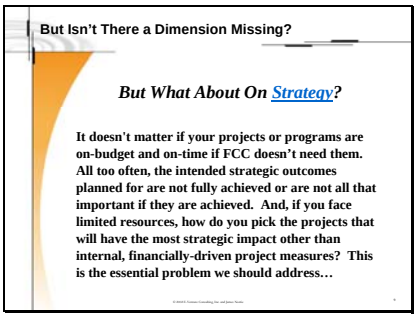
Current methodology essentially relies on a tripartite trade-off between budget, time and quality (normally defined as meeting specifications…). Again, this limited view does not take into account the issue of "on-strategy" and this is a potentially dangerous omission for firms since they can deliver a range of projects that would meet all of these criteria and still not successfully execute their strategy.

Slide 8



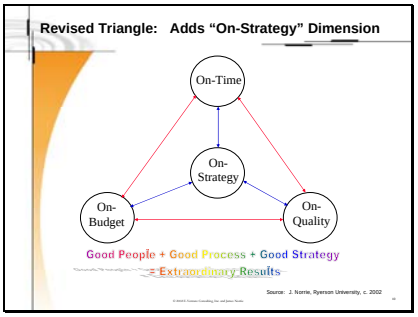
Eventually, the notion develops that projects should maybe be picked on the basis of sponsors/stakeholders view of what is "important" or "strategic". Again, this is not highly reliable and may omit essential projects that are requisite to strategy execution but not realized as such.

Slide 9



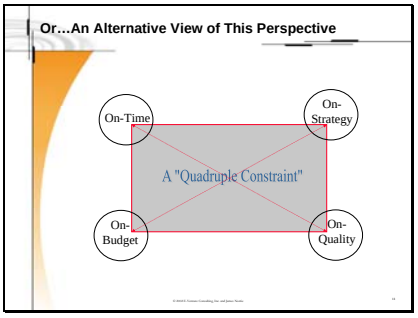
Self-evident statements for most executives; yet, when the gaps between these statements and their current practices are pointed out they are genuinely surprised!

Slide 10



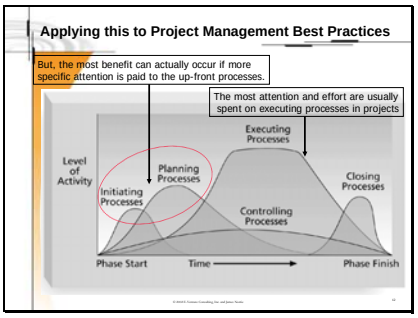
Adding the "on-strategy" dimension helps ensure a more complete picture of the project portfolio emerges and often leads to the creation of projects more closely and more measurable related to strategy execution.

Slide 11



Simply an alternate graphical view.

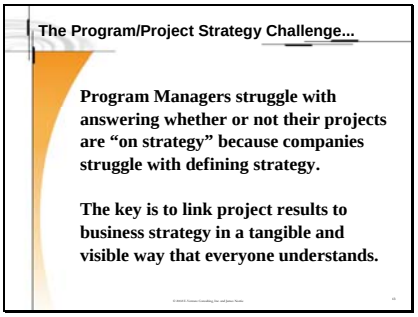
Slide 12



Another significant gap identified in practice is that most organizations have a tendency to allow their focus to drift to those steps in the process which have the highest level of effort (LOE). However, most often, more benefit can often be felt if the organization actually spends more time in the planning rather than the project execution stages.

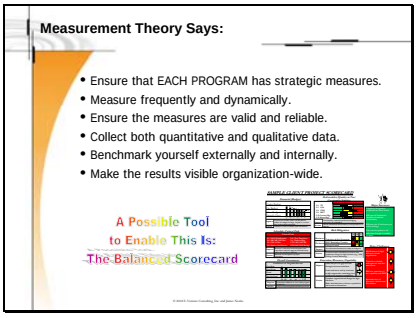
This slide addresses this challenge head on and forces executives to address gaps in their current project management practices as part of an overall PPM implementation.

Slide 13



Having strategy directionally understood vs. embedded in the organizations systems and processes (through measurable outcomes ideally) is a challenge faced by most organizations at some level. Repairing this gap is part of the proposed changes to the PPM methodology advised by this research.

Slide 14

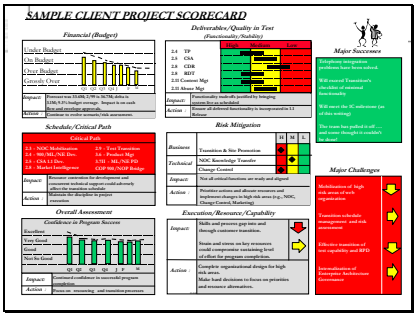


It is NOT essential the organizations adopt the Balanced Scorecard per se as their chosen methodology. Essentially, any properly balanced and effective corporate performance management system will likely have this same effect.

However, given the researcher's familiarity with the Balanced Scorecard methodology and this particular firm's prior experience and confidence with this technique made it a natural fit.

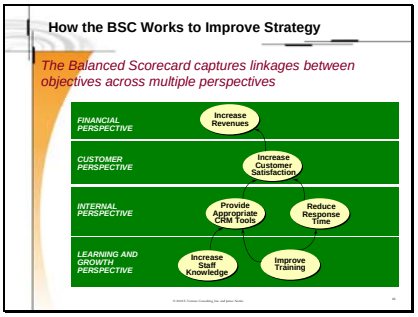
Additional future research may wish to explore what specific elements of balanced performance management are and are not important to the outcomes in question.

Slide 15



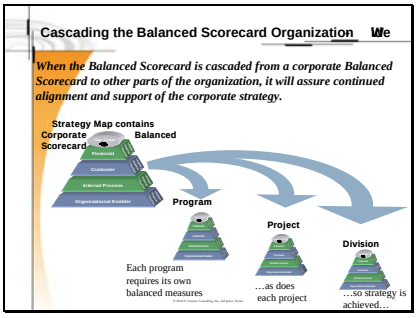
A sample "project balanced scorecard" (from previously published work in this area by the research previously cited) that demonstrates how balanced scorecard methods can also be applied at the individual project level. This slide was inserted at the client's request to help get executives "on-board" for using the BSC generally within FCC.

Slide 16



Similarly for this slide…which helps concretize the contribution of the Balanced Scorecard as a strategic management tool which forces executives to locate "cause and effect" relationships between actions and results.

Slide 17

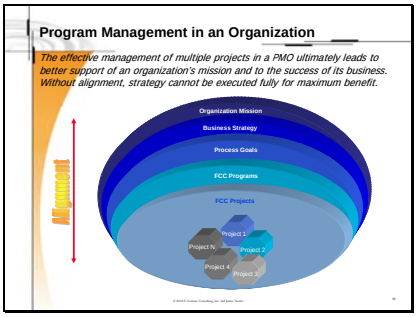


This slides helps make the essential point about the need to connect individual projects and groups of projects (programs) to the firm's overall strategy. A common mistake made (especially with longer-term, IT-enabled projects) is that they are approved once (at a particular point in time usually on the basis of a business case or similar tool) and then never re-visited during execution to determine if they are still as strategically necessary and productive as when they were first approved.

This may be a remnant of thinking that says "stopping" a project and "writing off its costs to date" is perceived as a failure. Yet, if the firm operates in a dynamic and constantly changing environment (as most firms do) and strategy is constantly being revised and reviewed, is it not possible that a newly conceived project actually has a higher relative priority strategically and offers more opportunity to the firm than some previously approved projects?

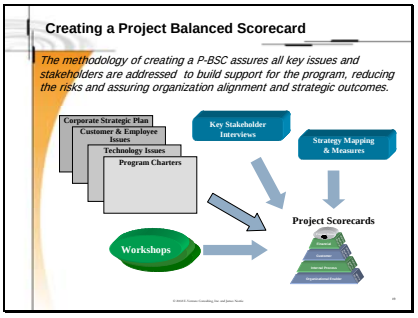
This requires that during the launch of the new methodology inside the firm that we address some of these cultural and leadership issues directly.

Slide 18



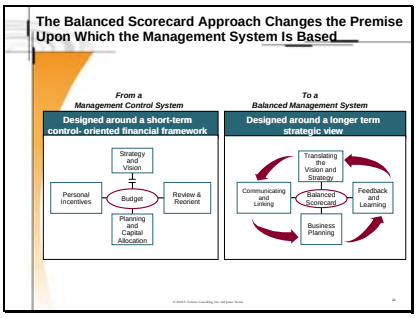
The issues of alignment of the firm's strategy (mission) through measurement down to the individual project level becomes an essential element of the revised PPM methodology installed in the firm. Executives immediately seem to see the benefit of this change in practice when it is presented and explained using this graphic.

Slide 19



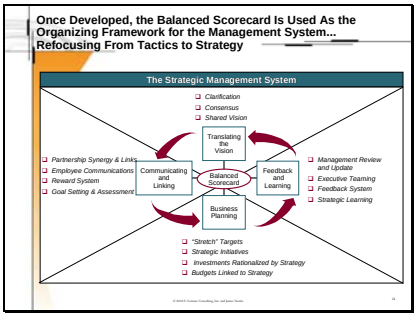
A quick overview of some of the process steps (executive interviews, training workshops, existing project methodology reviews, etc.) that form part of the process of launching and installing the PPM process into any organization.

Slide 20



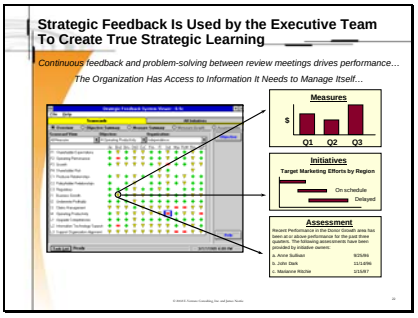
A summary slide of the deliberate move away from a short-term, financially driven portfolio selection tool to a more broadly-based strategic management system focused on measurement.

Slide 21



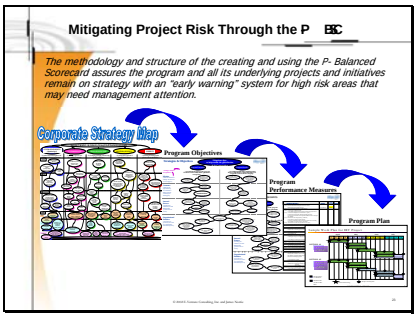
And some of the other management systems often impacted by this change…executives tend to realize during this presentation and in the months during development and installation of the new PPM process that a number of their core management processes, techniques and tactics may seem logical and strategic on the surface but that this may be hiding substantial flaws and competing tendencies that defeat strategy execution ultimately.

Slide 22



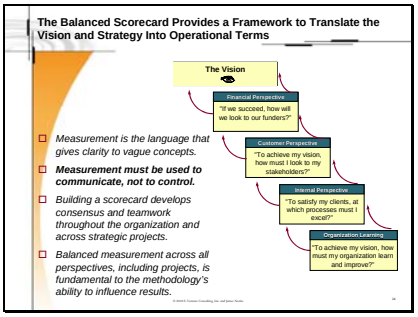
A little bit of a basic reminder of the value of having measures as part of an "early warning" project risk management strategy (another inherent benefit of this PPM methodology for the firm).

Slide 23



Tying it all together into a single picture near the end…

Slide 24

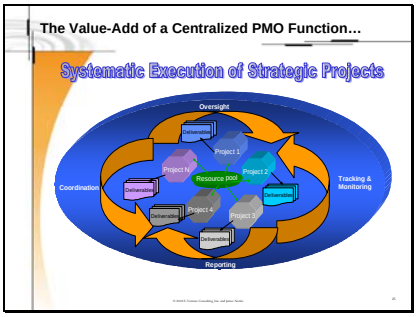


This slide helps define the elements of "balanced measurement" as derived from the original balanced scorecard work by Norton & Kaplan.

Taken into a project context, any firm can ask a similar question when assessing the value of proposed projects in order to end up with a final project portfolio that actually addresses strategic objectives in all four quadrants (perspectives) of the balanced scorecard (or whatever equivalent they choose to use…).

This is different from internally ranking and comparing projects which may inherently omit one or more of the perspectives unless there is a deliberate attempt by the firm to ensure the right mix of projects and to actually create projects where gaps are determined.

Slide 25



Final slide puts it all together and indicates the value of a centralized project portfolio process within the firm. At this point, executives often have quite an involved discussion with the researcher about what was presented and how it fits with their own views of their firm today…

APPENDIX H – CASE STUDY EXECUTIVE INTERVIEW SUMMARIES

All responses are based on a total of 12 interviews (9 with members of the executive team including the CEO, COO, CFO, CIO and five General Managers or Divisional/Functional VP's and 3 with senior managers within the PMO including the unit manager). For reference to the questions themselves, please see Appendix B for the interview guide used to conduct these interviews.

Pre-Question #1:

-7/12 respondents indicated projects were biased by the proposer;
-10/12 respondents indicated that the "business case" or "return on investment" was a factor
- 3/12 indicated the presence/absence of an approved budget was an important factor
- the use of "executive scums" or "budget scrums" or "annual planning sessions" to select the "winning" projects seemed to be the established norm of the current process
- priorities were *not well established* was the opinion of most respondents (10/12) to various degrees and with two noting that the only priorities that mattered were the opinion of the CEO or CFO on a project's importance.
- there was no formal method of prioritizing identified as having existed prior to the PPM project intervention

Pre-Question #2:

-most (11/12) participants agreed that individual project management practices at FCC were working well although one noted that it was "too bureaucratic"
- all (12/12) indicated that projects vying for the same resources was a serious issues (particularly highlighting IT in 9/12 responses)
- respondents were uniformly (11/12) positive on the potential impact of the new PPM methodology to help address this gap with one notable exceptional response where the respondent did not at all feel that a system which de-emphasized who was proposing the project was appropriate in the circumstances and felt that functional importance (i.e. sales & marketing) should be viewed as a factor in project selection/management

Pre-Question #3:

-most (11/12) participants agreed that individual project management practices at FCC were working well although one noted that it was "too bureaucratic"
- all (12/12) indicated that projects vying for the same resources was a serious issues (particularly highlighting IT in 9/12 responses)
- respondents were uniformly (11/12) positive on the potential impact of the new PPM methodology to help address this gap with one notable exceptional response where the respondent did not at all feel that a system which de-emphasized who was proposing the project was appropriate in the circumstances and felt that functional importance (i.e. sales & marketing) should be viewed as a factor in project selection/management

Pre-Question #4:

-there was more divergence on this question among respondents than might have been anticipated among senior executives
- two respondents identified "culture" as a barrier to implementation (notably around executive team dynamics, past behaviour and degree of willingness to cede decision making to a defined process with fixed parameters); four respondents identified specific colleagues by name as "possible barriers" and provided reasons for their conclusion; two respondents identified possible political interference in internal FCC matters as possibly providing a rationale for dismantling or containing the process once launched; four respondents identified a "lack of investment capital" as a limiting factor previously.
- of those identifying problems, few had particularly concrete suggestions on how to overcome them with the exception of two consistent respondents who indicated that "what matters around here is what the CEO wants to have happen…if you get him on-side, the rest will follow" and similar remarks from similar respondent #2.

Pre-Question #5:

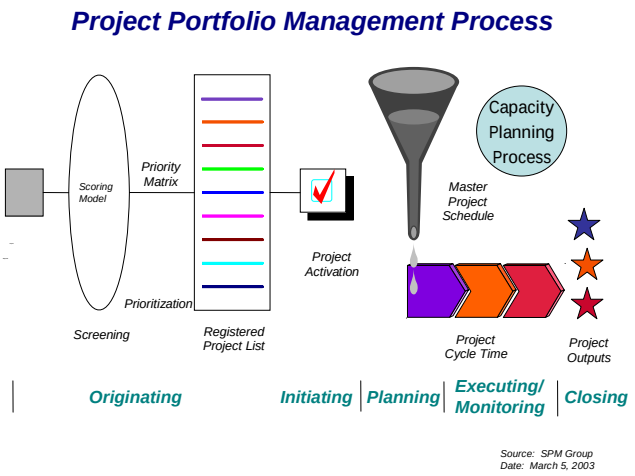
- no notable additional responses to questions #5 except some specific advice or commentary to the researcher on this training style or methods he might consider using to keep executive buy-in high – none of which is relevant to the intervention itself.

Post-Question #1:

- most respondents (10/12) articulated "on-strategy" as the primary means of project selection post-PPM; one respondent articulated that is was a combination of "strategic and financial returns" and one respondent did not feel much had changed from before.
- Most respondents (9/12) felt the new approach was more effective than past practice while two respondents were neutral indicating that it had "changed" but they were still evaluating the "benefits of PPM" (or similar) and one respondent was negative indicating the process was "too complex and takes too much time to do what we did before just fine…"
- A major rationale for the improvement cited by most respondents was "reducing politics" or "reducing the effect of the project proposer", "depersonalizing the process", etc. This was notably present in the interview commentary.

Post-Question #2:

- To prompt more detailed answers for this question, a depiction of the process (an artifact also used in training) was available for respondents to focus their comments around (to be included in the thesis as an appendix…)



- Most respondents (9/12) indicated an improvement in "project selection and prioritization" and/or "project screening"; 2 respondents identified improvements in "project activation or approval"; 5 respondents also noted an improvement in the "capacity planning process"
- Some respondents (7/12) particularly identified the IT estimating process as requiring some "re-tooling" or "more reliability" and saw this as a negative contributor to project management outcomes in the organization. There were limited suggestions on what to do about this.
- Few respondents (3/12) particularly identified that the capacity management process, while improved through prioritization, was still weak in terms of providing specific guidance to the "front line employee about what to work on next and how to make that decision".
- Some respondents (8/12) saw more impact of the new process in the "front-end of the project management cycle" (or similar wording) while 3/12 saw it as "impacting our processes end-to-end" and only 1/12 saw it as a negative impact
- Respondents were generally able to identify the PPM process as having a positive impact on overall project management practices within the organization. Respondents were generally supportive of continuing with the new process.

Post-Question #3:

- All respondents (12/12) including those that were not in total agreement with the process design itself were able to articulate a benefit around "reducing the number of projects we do…", "improving the quality of project submissions", "getting rid of projects we shouldn't be doing…" or similar. All respondents seemed to have a positive perception of a reduced number of projects – this may or may be a good thing since it may represent a bias against projects generally – in which case the impact of the methodology would, de facto, be perceived positively regardless of whether or not the reduction in the number of projects was in fact strategic.
- Most respondents (10/12) seemed to express a sense that the PPM methodology would lead to "more efficient use of capital", "improved use of resources", "improve project outcomes", "deliver more projects on-budget", etc. One respondent expressed a sense that the methodology might increase project costs because of the need to improve estimating practices internally before they could be relied upon more. And one respondent had a

sense that the costs of this process (mostly expressed as staff time) outweighed its benefits but could not be more specific than that in the interview.

Post-Question #4:

- Some respondents (7/12) identified "more solid projects" (or similar) as the biggest opportunity for the firm
- Some respondents (9/12) identified "more rigour" or "more informed decision-making around projects" as an opportunity that was anticipated and delivered.
- A few respondents (3/12) identified concerns about the costs/complexities of the PPM process in relation to its tangible benefits – particularly as they related to a positive financial impact and the degree to which that could or could not be proved
- Most respondents (10/12) felt positively that the process facilitation had dealt with most of the barriers and they had been resolved to their satisfaction; one respondent was neutral and one was negative on this point.

Post-Question #5 (verbatims):

"I would do this again at another company if they had the same problem…"

"This was a substantial investment of my and my colleagues time that will have to result in cost savings or improved project outcomes to justify…it's a good process – solid and makes sense – but our internal processes such as IT estimating or project budgeting are going to have to also improve if we are to benefit completely."

"The process takes the personality and politics out of approving projects – our conversations as an SLT were much improved from past years on this topic"

"This process really needs us to be disciplined – not our strength always. But I also hope it doesn't take away our creativity, especially in terms of new product design/development"

"Its really important to train our employees in this whole strategic measurement piece – so that they can propose strategic projects in the first place!"

"If I had to do this process again, I would do it by training functionally first with the VP sitting in on the training of their employee group rather than training the executive first followed by mixed groups of employees"

"The process is good; but working through the tools is complicated and providing more support for the first two or three cycles would be helpful and increase our learning".

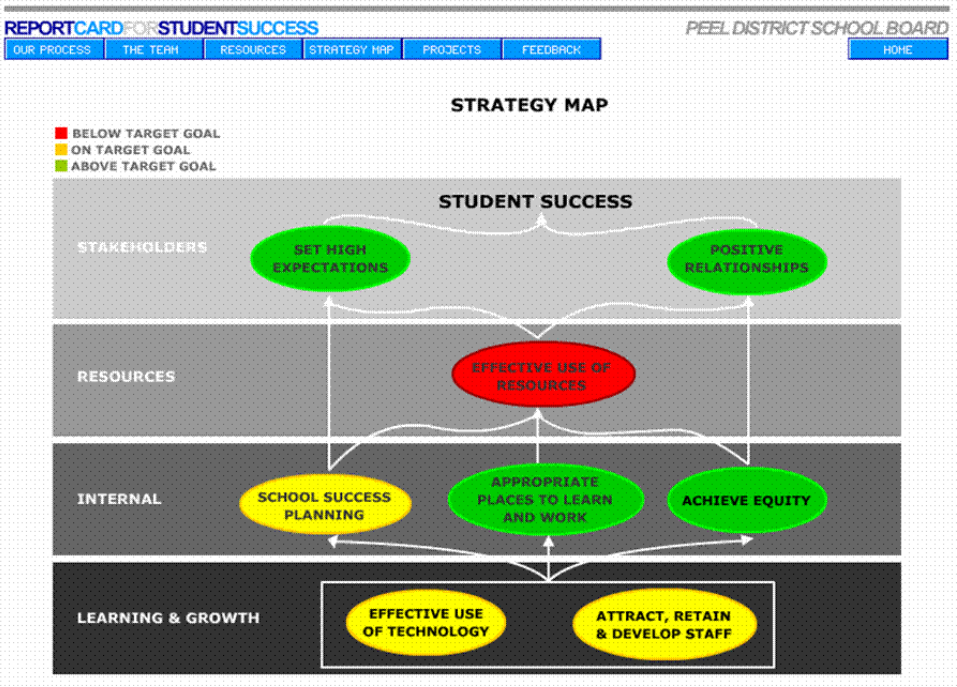
"I am concerned that Finance and IT may not be able to provide continuous support for this process as the volume of project proposals increases – not sure what to do about this but it should be addressed by SLT".

"Time will tell, but we may have transferred our project prioritization problem from the executive team to a process run by a mini-committee of the executive team…somebody still has to be willing to pick some projects to proceed and others to get killed. Will we be ready to actually do this? If not, the process will eventually fail"

"We get really torqued around here about spending capital – what if the approved projects that are strategic actually overwhelm our resources? The process does not provide for any kind of limit on capital and it might be useful to consider how this could be incorporated in the future."

APPENDIX I – CASE STUDY ARTIFICACT: "REPORT CARD FOR STUDENT SUCCESS"

The initial "Report Card for Student Success" created by the Peel District School Board showing their strategy map including cause/effect relationships. This is accompanied by the explanatory notes for each bubble which follow in Appendix K subsequently and they are used together.



Note: the PDSB made the decision to change the labels on the four perspectives of the Report Card for Student Success to more appropriately align with internal language although the intent of each remains consistent with the original methodology in every respect.

Sample of the level of specificity in relation to each aspect of the Report Card for Student Success generated by the management team including the proxy measure, process measures and approved projects in the portfolio. There is one of these for each of the individual "bubbles" on the strategy map of their Balanced Scorecard/Report Card for Student Success. These are equivalent to what was referred to in the private sector case study as "strategy statements": Each of these statements articulate not only what is to be achieved in specific terms, but also the measures and associated projects initiated to support these objectives.

Internal

Champion = J. Nyman

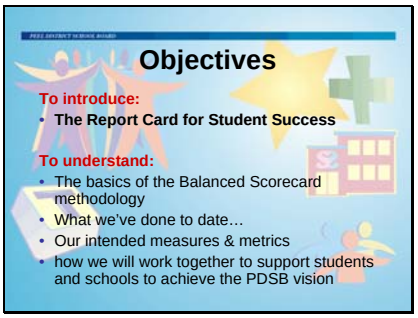
Description	We develop professional learning communities to support a school success planning framework that is inclusive, collaborative, data-driven and results oriented. School success plans are aligned with system goals and key **strategies to maximize student success.**
Indicator	➢% of administrators trained in School Success Planning
Projects	➢Develop and implement in all school sites the School Success Planning web site for the 2004-2005 planning cycle ➢Train all school administrators in School Success Planning
Processes & Measures	➢School Success Plans ➢**% of schools with a plan in place (Annual)** ➢**# of school success surveys administered** ➢% of plans organized with 3 components ➢(Instruction, Climate, & Leadership) (Annual) ➢**School Success Team(s)** ➢**# of meetings of school success teams** ➢**% of staff serving on school success team(s) (Annual)** ➢**# of schools where school council has been involved with developing a school success plan (Annual)**

Slide 1

These workshops were conducted across the organization with a variety of individuals including all school-level administrators (Principals and Vice-Principals), leaders and manager of support functions, and others. This presentation was also given to the Board's Trustees to ensure the political decision-making arm of the organization was in support of this initiative.

The sessions were all conducted by the researcher and the Associate Director of the Board.

Slide 2



Self-explanatory: letting the audience know what the session was about.

Slide 3

This slide was accompanied by a handout (shown on the next page) that was a graphic representing the seven aspects of the Report Card for Student Success in a single "wheel". This had previously been used as a communications vehicle within the School Board and was well-accepted by employees. So the decision to evolve and re-use this format was used in order to increase buy-in system-wide.

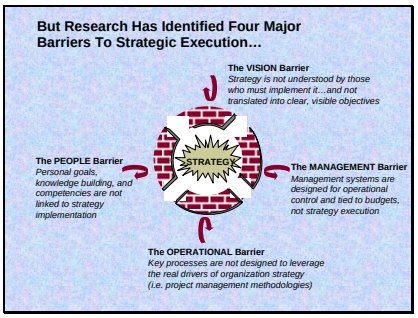
Slide 4

This is a reproduction of the actual "wheel" given as handout to training session participants and also distributed to every single employee of the School Board in Fall, 2003.

Slide 5

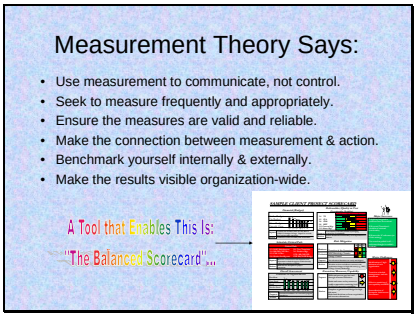
This inherently demonstrates senior management's commitment to improving on the execution of strategy with this initiative rather than on strategy formulation.

Slide 6



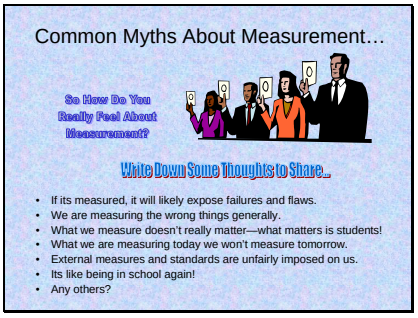
At this point, we took the audience through the basics of the origins of the Balanced Scorecard and also the barriers and opportunities we intended to address internally as a result of adopting this new methodology.

Slide 7



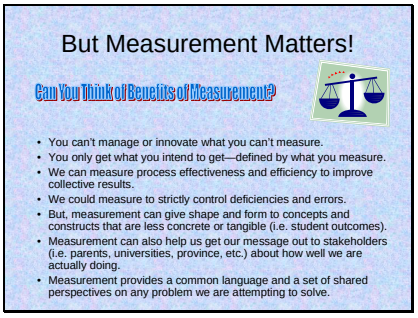
Confirming the need to move to a very specific measurement strategy that was linked to strategic outcomes.

Slide 8



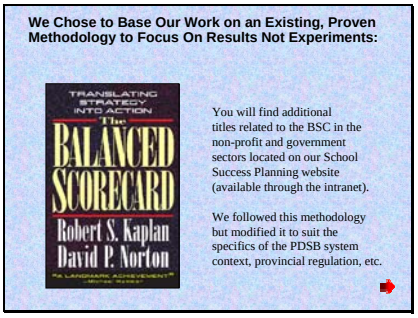
Similarly, this is important background information on how folks often feel about measurement. For PPM to work successfully, we identified that a cultural change was required that demonstrated a move away from measurement as a form of control (finding people doing things wrong or not making the grade) to a more positive perspective as a common language and constructive tool to allow us to pattern effective practices and determine which projects were contributing to the organization's success.

Slide 9



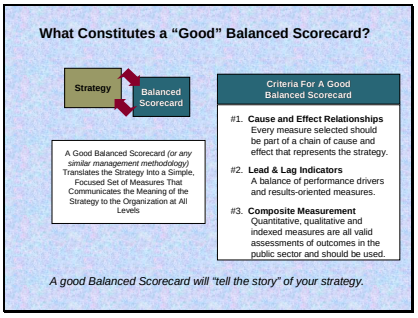
A critical slide that supports this cultural change among employees…

Slide 10



Participants may not have sufficient familiarity with the BSC methodology so some time was spent describing this and providing suggestions on additional resources where more information could be found.

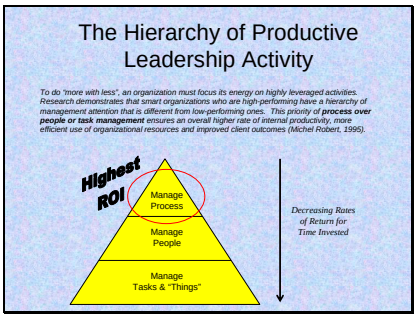
Slide 11



Informing participants that the "Report Card" was not an internal invention but rather had been patterned off an already established business methodology and that all that had been done was to put it into a private sector context using appropriate language, etc.

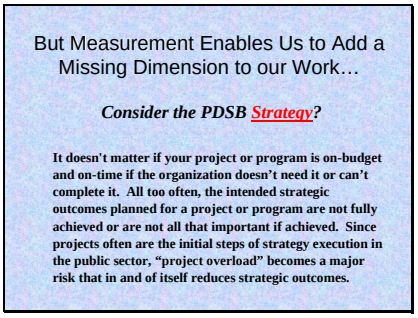
This appeared to be important information for training session participants. They wanted to know these concepts had been partially proven elsewhere before they were adopted by the School Board. It is the researcher's belief that this is a common issues in the public sector—since they have limited resources and support to innovate generally, they prefer proven methods that have a higher likelihood of success rather than innovating at the methodology level.

Slide 12



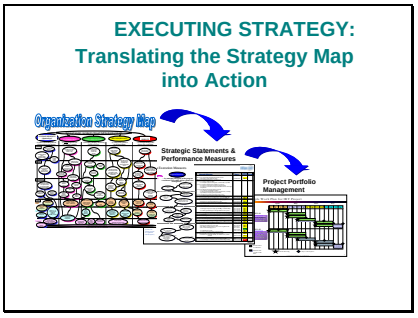
A slide that confirms the need to focus on PROCESS rather than on task or people management as the ultimate pivot point in terms of organizational performance.

Slide 13



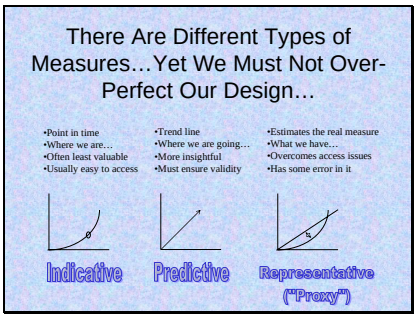
The traditional slide that challenges participants to think about whether project activity currently underway is actually "strategic". This is supplemented by an exercise that asks them to identify the many projects they are expected to be working on locally and its impact on student success.

Slide 14



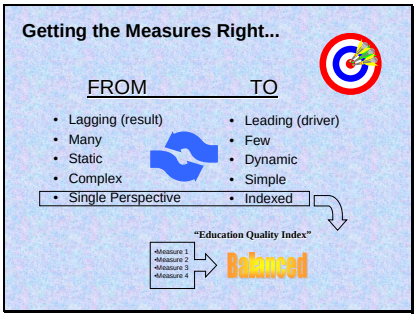
Another slide that helps define the methodology further in participants minds…

Slide 15

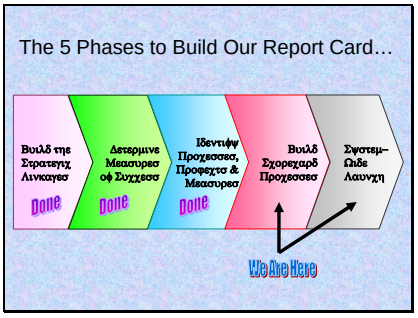


A slide that defines the term "proxy measure" and which also helps them understand why getting at critical data that helps them understand trends is critical to system performance…

Slide 16

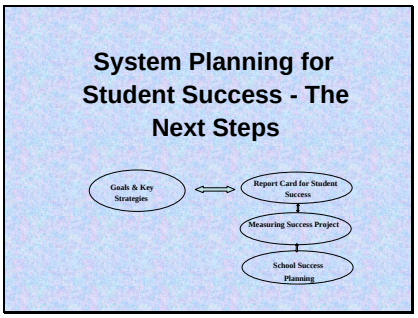


Slide 17



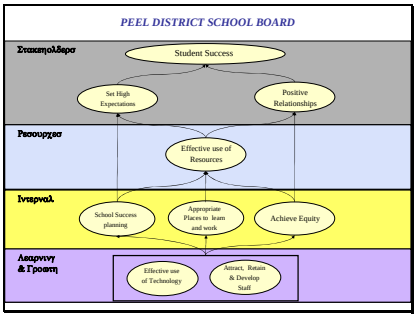
The Five Phases of the Report Card for Student Success Project undertaken by the Board with the researcher's support and guidance. As each phase was completed, the arrows and labels changed to represent this progress.

Slide 18



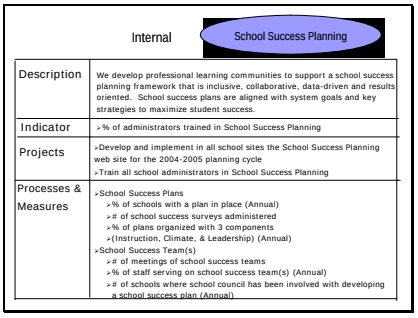
Slide on next steps…

Slide 19



A representation of the actual "Report Card" for student success…

Slide 20

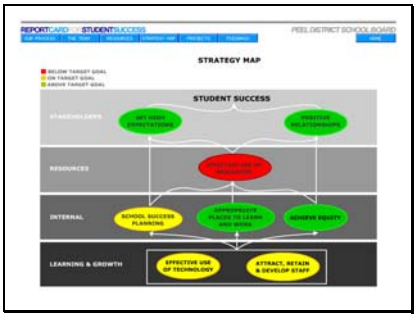


And an example of the detailed measurement work done on each bubble from the previous chart…the participants got these for all bubbles as a handout.

Slide 21

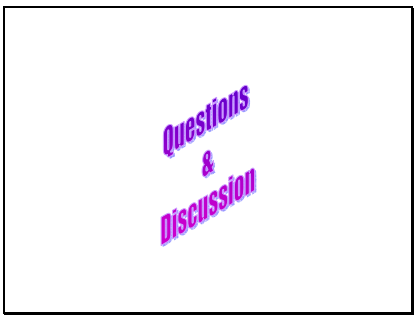
Summary of the intended benefits of implement a Balanced Scorecard driven PPM methodology within the School Board…

Slide 22



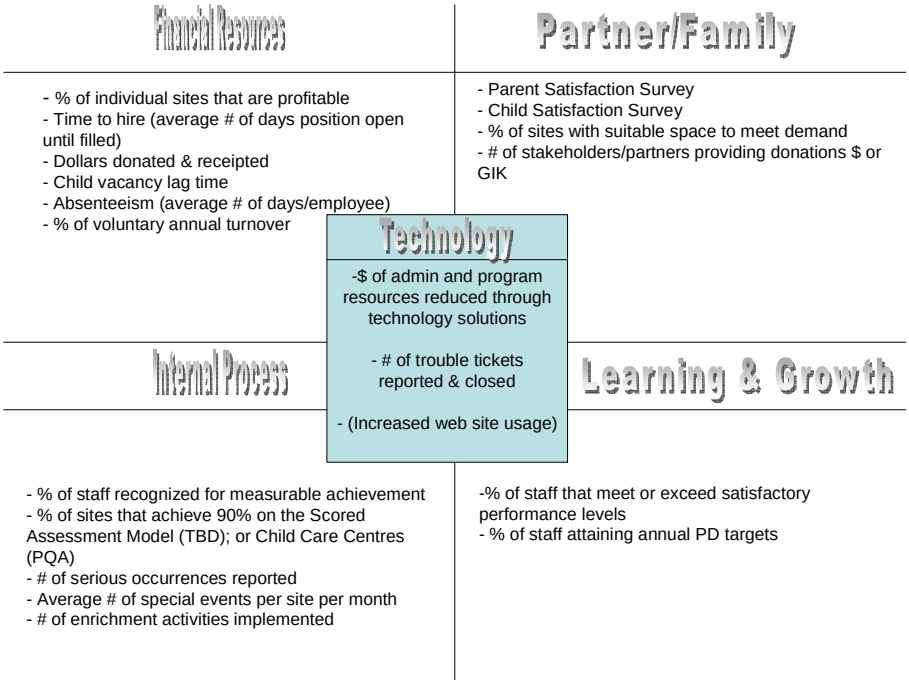
A draft of the website page that would ultimately be available on the School Board's intranet for employees to track how much progress was being made.

Slide 23



At the end of the training presentation, lots of time for questions and dialog was provided (and there was normally lots of it!).

APPENDIX K: PLASP BALANCED SCORECARD ARTIFACT



APPENDIX L: PMI JOURNAL ARTICLE W/D.H.T. WALKER

This paper was accepted for publication in the PMI Project Management Journal, December 2004 (v. 35,4, p. 47) and is cited in Chapter 2 and the references . Note that this early effort was more positivist in nature and focused on the application of the BSC to individual project management practices. This was paper was an early effort of the author's DPM studies – and it reflects an early naivete about the simplicity of describing and solving practitioners problems. However, the problem statement of PPM is much more complex and required a different research approach that actually got at the heart of what practitioners were or were not doing with current PPM methodology. Thus the study progresses from this early effort to more action-oriented research. Nonetheless, by way of background, it is useful to include this as an Appendix.

A Balanced Scorecard Approach to Project Management Leadership

JAMES NORRIE, director, School of Information Technology Management, Ryerson University, Toronto, Canada; and Doctor of Project Management candidate, RMIT University, Melbourne Australia.

DEREK H. T. WALKER, professor of Project Management and program director for Doctor of Project Management, RMIT University, Melbourne, Australia.

ABSTRACT

In this paper, we discuss ways that project managers can use measurement (using a tool such as the balanced scorecard) to improve the operational performance of their project teams. Project managers will see that attaching measures to outcomes clarifies project objectives and supports well-defined and well-communicated links between the project vision and business strategy. These also enable project managers to more effectively monitor and control project activities for the purpose of improving project results. This paper reinforces the importance of strategy as an added dimension to the traditional triple constraint.

We present this information through our comparison and survey of two projects undertaken by project teams at a large North American global telecommunications organization. The results of our study provide early evidence of the usefulness of the balanced scorecard (BSC) as a tool for improving project management effectiveness. Our study also shows that balanced performance measurement is an important technique for establishing on-strategy project delivery. We propose using this technique primarily as an extension of current practices by adding a strategic measurement dimension.

Keywords: balanced scorecard; leadership; project management practice; measurement theory; business performance management.

Vol. 35, No. 4, 47-56, ISSN 8756-9728/03

Introduction

There are numerous reports that document cases of projects, particularly information technology (IT) projects, delivered substantially beyond the due date and well above the outlined budget. One such project is the United Kingdom's (UK) notorious IT project Taurus. It was abandoned after it amassed UK£500 million in costs and produced few results. Project reviewers found a lack of project leadership and project definition as factors in causing Taurus's failure (Drummond, 1998). Such failures are often publicly touted by the popular business press in articles that frequently seem intent on vilifying the project management field. Such attention gives the public a lingering negative impression of our field's strategic value.

Project management researchers, however, as the current literature shows, widely recognize the important role organizational leaders play in envisioning a preferred future that encompasses both general strategy and change management. For example, Briner, Hastings, and Geddes (1996) state, "The most significant success factors for project teams is that they have a common and shared idea of what difference they are trying to make as a result of the project" (p. 89). To develop a preferred project outcome through exploratory dialogue with various project stakeholders, organizational leaders must have a clear picture of the strategy the company will implement to achieve the preferred outcome. The leadership's purpose is to define and scope a project so that its reason-for-being is well understood by those who can influence the project's successful execution. A leader's vision helps the project team articulate the project's objectives, goals, and products.

As a solution to the dilemma of lacking a clear project vision, Baccarini (1999) and Davis (1995) offer the Logical Framework Method (LFM) as a tool for defining project success. We agree with the solution offered by these researchers; but we argue that this method can be strengthened if organizations implement it within a strategic measurement framework. Doing so enhances the clarity of the objectives the team seeks to accomplish. And in doing so, organizations could help project teams connect specific project objectives to current strategic gaps. By linking the outcomes of a project with a measurable vision, organizations can enhance the commitment of the individuals on its project teams to their projects.

As far back as the mid-1980s, Tuman (1986) and Cleland (1986) concurrently recognized — and simultaneously presented findings — that contradicted the then-common notion that on-time, on-budget, and on-quality were the most strategically important and valid measures of project success. Yet now, almost two decades later, professionals in our field remain quite focused on this legacy and often seem committed to only using this traditional triple-constrained model. This dependency may indicate our field's lack of finding a definitive alternative to the traditional model.

Our review of the current literature revealed that numerous projects are perceived as failing because of poor leadership and enfeebled articulation of the project vision or a lack of meaningful business impact. These perceptions show the ways that organizations have failed to align their overall strategic goals with the objectives of their individual projects. This information may also reflect how quickly business strategies change and evolve in relation to project timelines. Nonetheless, any tool or technique that can help organizations develop better-articulated strategic goals and objectives and more concrete project visions is a valuable leadership tool. We assert that the balanced scorecard (BSC) could serve as one such tool.

In our ensuing argument we identify the challenges involved in providing project leaders with the tools, methods, and information they need to develop a clear intersection between business strategy and project goals. We also recognize that business environments may be too dynamic to permit the organization to continually articulate and update the intersections between its business strategy and a particular project's goals. Hence, we see the potential for a possible gap in project management practices to emerge, one that arises at the point where these intersections are not well understood and where the ill-defined project vision is internalized by the project team's members and acted on to the organization's ultimate detriment.

Best practice implicitly assumes that project teams have a clear vision of the project that evolves from a process led by the executive sponsor and a project leader. This is the process used in project management's traditional triple-constrained model, which — as mentioned — focuses on time, budget, and quality outcomes and presupposes that all projects that are approved are therefore strategic. To negate this assumption creates communication and decision-making challenges that are perhaps new to many project managers. What if the projects were not strategic? Or what if the strategy evolves more quickly than the project's timelines? If over time a project that was once a highly strategic imperative devolves into a less strategic initiative, project managers may find themselves lost: Traditional business case methods do not provide guidance on ways to confront this situation. Such strategic ambiguity creates severe leadership challenges.

In response, project managers may try to create an illusion of tangible progress by relying more heavily upon traditional on-time, on-budget, and on-quality measures—yet this tactic fails to address the strategy ambiguity or establish appropriate project goals. Organizations accepting this approach would divorce their projects, in regard to an on-strategy measure, from critical executive insight and leadership. The centrality of this point is best illustrated with a diagram that creates a quadruple constraint by inserting into the pyramid of the traditional three constraints an *on-strategy* dimension central to managing project success.

A major premise of this paper is that the on-strategy aspects of project management are clearly the shared responsibility of the project sponsor and the project managers. This shared responsibility demands that these individuals wrestle with this issue via an ongoing dialogue in order to create a process that resolves any ambiguities. The traditional triple constraints, however, are more clearly the direct responsibility of the project manager and project team, once the project sponsor agrees to the project. Figure 1 notes that the connection of the newly added on-strategy dimension is central to the achievement of the other three traditional constraints.

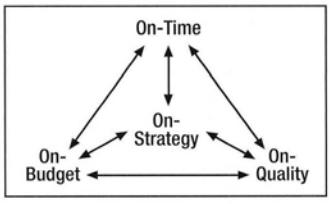


Figure 1. A quad constrained project management model

The problem of providing project leaders with the tools and process needed to resolve any potential gaps when emerging strategy does not obviously or consistently intersect with existing project goals is the focus of our proposed change to the current triple-constraint methodology.

To support our conclusions, we are reporting on our previous study of two projects. In this study we tested our above-mentioned proposition. Our research goal was to show that when an organization uses a BSC framework, it could improve the ways it develops its project goals and objectives because the BSC enables an organization to create a better link between project vision and business strategy, which results in more successful outcomes. We also wanted to learn which areas of current project management practice were impacted the most by an organization's use of a BSC. We wanted to discover if the BSC actually improved the project team's ability to make positive strategic decisions.

Project Leadership, Project Vision, and the BSC

To better understand project management, we believe practitioners must distinguish between the management of a project (the day-to-day operations of a project plan in pursuit of an agreed set of outcomes—on-time and within budget) and project leadership (the higher pursuit of the project team's creating purposeful, strategic action that will augment the organization's business strategy and achieve results within the norms and values of the organization).

The current literature shows a general agreement among researchers about the differences between leadership and management (Bennis, 1989; Kotter, 1990; Zaleznik, 1977). There is also an extensive body of literature that has already explored this domain; exploring these differences in this paper has limited utility. What is important to note is that, in general, researchers agree that leadership must exert itself most when the business context is vague, dynamic, or challenging. (There is a lack of citations in the literature indicating how to accomplish this in a project management setting when these same conditions appear.)

By definition, project management is about implementing a change program (Briner et al., 1996; Cleland, 1999; Turner & Cochrane, 1993) in the form of system changes — as in IT projects — or in building projects, new automotive products, airplanes, or weapons systems. This creates a dilemma for project managers who, when faced with a set of ambiguous circumstances, do not appear to have at their disposal very many tools to address these situations.

The project manager acts in many ways as both a leader and a manager; however, the project sponsor may, depending on the project and personalities of the project sponsor and project manager, influence the extent of this overlap (Briner et al., 1996; Cleland, 1999; Morris, 1994). We do not wish to underestimate either of these issues or the behavior and competence of project sponsors and project managers; rather, we want to provide a more concrete method for addressing this gap than simply relying on managerial competence.

Many leadership tasks relate to developing a vision of the project outcome that is practical and yet capable of mobilizing and motivating team members to accomplish the project's goals and objectives. This leadership vision engages stakeholders who are not actively involved in the project; it also inspires them to maintain their support over the project's timeline. This process of envisioning a preferred future state, of taking a solution-building negotiation approach to defining the scope of the project and then clearly communicating this to the project team and other stakeholders, defines a strategy for realizing the vision, and translating the strategies into operational plans and results.

A vexing problem particularly relevant to our study is the organization's providing leadership to a project team when the project context or business strategy is either ill-defined or dynamic to the point where there is not a clear and measurable connection between the project goals and outcomes and the business strategy. The latter problem could also involve team members who do not necessarily agree on the interpretation of the strategy in relation to their assigned goals and objectives. This problem has been explored in the past, most notably by Bennis and Nanus (1997), Bennis, Spevietzer, and Cummings (2001), and Turner and Cochrane (1993). The existing literature contains both general team-based solutions (Katzenbach & Smith, 1993; Robbins & Finlay, 1997; Yukl, 1998) and specific project-based solutions (Briner et al., 1996; Thite, 1999). In exploring this problem, we found that the connection is either ambiguous or understood by only a few key stakeholders, rather than more broadly accepted by everyone who can influence the full range of project outcomes. Many researchers, particularly Senge (1990), have stressed in their work that a narrowly held vision is insufficient in most leadership contexts and fails to create purposeful coordinated action among all followers. This problem has been so thoroughly studied and documented that we agree with this conclusion.

We noticed another possible problem that arises when a corporate culture or a particular internal set of values is incongruous with project success. This topic is also well studied in the change management literature (Collins & Porras, 1996; Kotter, 1995): The symptoms and causes of this kind of discord at the corporate level are, according to this literature, well understood. More recently, researchers have begun assessing the impact of this topic in a project context (Yukl, 1998), although primarily from a social-psychological perspective. We propose that researchers look at this problem from the perspective of enhancing the way project leaders use strategic measurement.

For projects with a long time-horizon, it would seem that the most likely cause of a lack of strategic connections is rapidly changing industry or business circumstances. These circumstances most likely occur in mega-project settings; an example is the implementation of enterprise resource planning (ERP) or customer relationship management (CRM) technology, where the time horizon for a significant IT project may run into years and impact upon all core operations of a company. It is critical — especially in these types of projects, where changed strategies can radically influence a project's goals and objectives — that such projects are directly connected, and remain connected, to the company's emerging and changing business strategy. Unless project leaders constantly and purposefully measure the on-strategy dimension of an organization's projects, they may fail to successfully keep projects connected to the organization's evolving business strategy. If these leaders rely purely on the traditional measures of the triple constraint, they could, quite possibly, successfully deliver an ultimately non-strategic project on-time, on-budget, and on-quality!

Regardless of the originating reasons for the problems identified above, any gaps between vision and strategy create potential challenges for the daily operational management of projects, especially when managed under ambiguous conditions. While we do not intend to minimize the efforts of previous authors to address this problem, in general we found that the solutions almost always focus on a desire to present methods directed at the behavior of the team leader or on addressing aspects of the problem resulting from the company's culture or values. There is often a heavy emphasis on motivational theory as

the underpinnings of how leaders influence team members. While useful, these studies do not seem (based on our experience) to address the core problem: The insufficiency or instability of strategy to properly develop and express a project vision that is connected through measurement to tangible business outcomes. In response to this deficit of clarity, we set out a succinct methodology that involves a BSC framework — modified for the project management context — to assist leaders who are facing this dilemma. Although our research used the BSC framework, we believe that any appropriately defined and balanced performance management system could potentially be substituted and would produce a similar effect.

A Balanced Scorecard Approach to Project Management

We now turn our attention to the specific methods for operationalizing business strategy. The BSC is one tool — extensively developed, tested, and demonstrated — that has proven its value within corporate settings. This instrument transforms strategy into operational plans and strategic measures that enable the organization to decide whether or not a project is operating on-strategy. This outcome occurs regardless of situational ambiguity about any one individual's understanding of — or agreement with — the underlying strategy that led to the definition of these measures. One major benefit of this approach is its capability to take a very complex, often ill-defined business strategy and reduce it to a level of specific measurements that shows stakeholders and team members their particular and expected contribution to its ultimate achievement. This tool creates tangible value from measurement and implies taking vague notions of strategy and turning these into executable plans.

However, while proven at the corporate level, to the best of our knowledge only a few researchers have published papers (Stewart, 2001; Stewart & Mohamed, 2001) about applying this methodology to IT projects. These papers discussed extending the benefits of this approach to the management of major projects. Current literature in the strategy domain suggests that organizations should link planned outcomes to their corporate strategy using a measurement framework. This process is referred to as performance management and is common within corporations. We find it is also a critical deliverable for project leaders interested in on-strategy project delivery and that it is essential to link project outcomes to corporate strategy using measurement as the enabler.

To address this increasing need for leaders to operationalize strategy through projects, we hypothesized that a project-level BSC might enable leaders to use appropriate performance measurement and leadership techniques, which already exist in other parts of most corporations, to help project teams improve their understanding of their organization's business strategy.

Our purpose was to develop, test, and apply a strategic measurement system, based on the BSC methodology, specifically for projects. We anticipated that this approach would itself be immediately valuable to project managers and senior executives of large corporations who are faced with increasingly complex issues related to ensuring a timely understanding of business strategy among disparate and dispersed global project teams—teams that may have varying degrees of ability and interest in understanding the company's overall strategy. Using a project BSC can help address a project vision gap by making strategy easier to understand in a practical rather than theoretical form. The idea is that this helps the company improve its competitive position by ensuring that project managers pursue the on-strategy and on-quality aspects of project management with the same level of effort and vigor they direct to on-budget and on-time concerns. By making this exercise easier to do and more visible at the project level, this overall objective is more readily achieved.

We found that successfully completed projects required a task management focus and an appropriate emphasis on process as a method of tracking and reporting tasks, usually in the form of a project plan based on a work breakdown structure (Project Management Institute, 1996). An understanding of the project management process, its phases, and the appropriate methods to manage deliverables has clearly been the emphasis of the early evolution of our discipline. However, we must not over-emphasize the management aspects without due regard for the essentials of leadership in a project management context.

We suggest that project management professionals acknowledge that the management of a project is the easier of the two things to accomplish. Task and process management is relatively easy to learn and can be applied routinely; leadership of a project, however, is a different matter altogether. In their landmark work *Project Leadership* (Briner et al., 1996, p. 67) emphasize the role of a "sustainer" as a key aspect of successful project sponsorship. They also stress the need for project managers to orient themselves towards alignment and away from enforcement—an elusive concept of trying to create congruence among the team and with the project's goals by using a variety of activities and sources of power to influence others to act in accordance with the project leaders' desired outcomes, rather than relying on a traditional *command-and-control* management orientation. We submit that the use of a project BSC offers organizations a powerful, additional tool for accomplishing this critical success factor and improves project team alignment.

Our collective experience in working worldwide with corporate clients has shown us that many project managers are not fully schooled — either in formal academic settings or through on-the-job project experience — to necessarily note the subtle but important differences between perceived power and actual power. Learning to distinguish between influence and control to achieve results often means the difference between temporarily controlling an outcome

by forced compliance versus creating a lasting change in people's behavior (Greiner & Schein, 1988; Kotter, 1999; Loosemore, 1999; Pinto, 1998). Some project managers, however, may not see the two techniques as very different. As a result, we often observe that project managers eventually come to the conclusion that they really cannot be everywhere at once to vet every decision to ensure that the team appropriately conducts itself in performing its roles and realizing its project. As a result, most managers revert to some kind of *exception-based* or *situational leadership* method to address ongoing challenges, as recommended by established theory (Hersey, Blanchard, & Johnson, 1996). While somewhat effective, this tactic does not completely address the issue.

Results from an earlier study (Hersey et al., 1996) suggest that a project level BSC can also become a tool that provides an indirect form of influence on daily decision-making within a project team: This tool is perhaps more powerful than other methods of influence. By demanding that project team members link their own actions and decisions with the overall intended strategy of the project (which, in turn, is an extension of the corporate strategy, if the BSC methodology was consistently applied), can assist with *on-strategy* project execution. It extends a virtual leadership presence, which injects itself into every critical project event and decision. While this requires additional exploration, this methodology could, if proven in future studies, represent a fairly significant breakthrough in the decision-making methods used for everyday project operations.

The sequence that is used to build a BSC, originally designated by Kaplan and Norton (1998a, 1998b), is well documented. In the literature, what this sequence produces is often referred to as a *strategy map*, a form of causal model. If we intuitively move to apply this existing methodology in a project context, we must consider several important changes:

1. In a project context, the role of the BSC must change from measuring the overall achievement of strategic objectives to measuring the specific results of the project and comparing these to the project's intended impact on the organization's execution of its business strategy.
2. Instead of only focusing on mapping business strategy, we must map the intersection of the project strategy and business strategy and more closely align these strategies as a result of this review and use the project BSC as a tool for leadership; doing so tests this alignment issue more directly.
3. We must modify our approach to measure specific project-related deliverables and objectives, as opposed to higher-level business outcomes, and appropriately settle on project-based measurements that link to strategy.

Once these discernible differences are understood and applied, the basic steps of the original methodology remain the same and are applied similarly. In the interests of brevity, we have chosen to avoid a detailed discussion of the specifics of the original BSC approach in this article to instead focus on its benefit in a project setting.

The hypothesis that we were interested in testing was whether or not the BSC would have a discernible impact on the project team's understanding of business strategy and the specific project's connection to strategy—a critical point in project management leadership. Therefore, the null hypothesis we seek to reject (at a 95% confidence level) is that the BSC has no significant impact on project management outcomes and does not positively impact the project team's performance.

The Pilot Study

We initiated our research while one of us was providing strategic project management consulting services to a global telecommunications firm. The firm has an extensive network and a particularly large presence in the United States and Europe; it specializes in business services and generates annual revenues in excess of US$300 million. The firm was a good research candidate because of its representative nature and because it allowed us to initiate and follow two similar-scope and similar-budget projects. These projects gave us the opportunity to test the impact of using BSC in a project management setting.

Each of the two candidate projects (code names *Blue* and *Pip*) met the criteria specified earlier in terms of each being vital to the company's business strategy. The project teams were virtually identical in size: Between 40 and 45 full-time personnel teaming with various consultants and contractors that were required to provide key project deliverables. A number of these individuals were Project Management Professional (PMP®) certified. Both projects had estimated timelines — from initiation to completion — of 9 to 12 months; both had multi-million dollar budgets.

During the project period, we closely monitored both project teams and consulted with each team's global project managers and executive sponsors. The Blue team was managed using the firm's existing project management methodology and according to existing company practices. These methods and practices were generally quite consistent with — and compliant to — standard professional practices, as specified in *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)* (Project Management Institute, 1996). Table 1 summarizes this project's final on-time and on-budget results.

The concept of the BSC was introduced to the Pip team during initial training workshops that preceded the final project planning stages. These sessions, which lasted two days, were held on the company's premises. The team also learned, over a period of three days, the process of extending and integrating the methodology into the company's existing project management framework. Pip (the group using the BSC) showed actual final project outcomes in the three key result areas — on-time, on-budget, and on-quality

— that were better than those achieved by team Blue. While it is not possible to categorically state that this is all due to the use of this methodology, we observed strong evidence that shows the BSC had a positive impact on project performance. The use of this tool did create a higher degree of ownership and involvement from the team in the execution of the project than in the non-scorecard project, as measured by an executive assessment during on-site post-project interviews. The influence of this methodology on executive behavior is a significant finding in its own right.

We surveyed each project team with a particular interest in measuring any apparent differences between the teams that we could attribute to the use of the BSC. (Appendix A shows the questionnaire that we used during this study.) This method closely follows the case study research method proposed by Yin (1994), which added a substantial amount of qualitative insight to our study's less-reliable quantitative results. The sample of 34 returned surveys from among the approximately 40 individuals who worked on the two projects, while an excellent return rate, is not statistically representative of the total population of respondents, and so it is a limiting factor that could not be addressed by an alternate research design in this instance. As a result, the reliability of the sample — measured using Cronbach's Alpha — is a low .63; this result is a function of the limited variability in the responses to individual items from such a small sample. This meant that using statistical tests relevant for a small sample size inhibited meaningful reporting of extensive statistical variations between or among groups.

The primary benefit of the surveys was to identify specific aspects of traditional project management practice that appear to be most influenced by the application of the BSC in a project context (see Table 3). This knowledge may allow future researchers to more specifically identify the best practices that can impact the various elements of traditional project management practice that most companies use today.

During our post-project interviews in January 2001, we gathered additional anecdotal evidence about the qualitative impact of using the BSC. These interviews involved both in-person and over-the-phone discussions with members of the firm's executive team who were directly involved in this research.

Results and Discussion

We applied a variety of statistical techniques to our survey data. We compared individual results to respondents' answers, in terms of their job title and the length of time — measured in months — that each respondent served on a project team. The survey results do not indicate any meaningful variations based on demographics or project tenure, which suggests that the value of the methodology was consistently experienced within our small sample group.

Specific key result	Blue (non-BSC using group)	Pip (BSC using group)	Actual % difference
On-budget delivery	112 % (US$9.6 million actual vs. US$8.6M budget)	98% (US$12.1 million actual vs. US$12.3M budget)	14%
On-time delivery	+122% (11 months actual versus 9 months planned)	+110% (11 months actual versus 10 planned)	12%
Completed deliverables	94% (36 of 38 deliverables were 100% complete)	95% (18 of 19 deliverables were 100% complete)	1%

Table 1. Actual project results

ANOVA Analysis* for project results questions	Sum of squares	Sum of squares	DF	Mean	F	Sig.
Questions 1 & 11: On-time delivery	Between groups Within groups Total	7.912 18.117 26.029	1 32 33	7.912 .566	13.975	.001
Questions 2 & 12: On-budget delivery	Between groups Within groups Total	8.147 18.117 26.265	1 32 33	8.147 .566	14.391	.001
Questions 3 & 13: On-strategy delivery	Between groups Within groups Total	24.308 21.722 46.029	1 32 33	24.308 .679	35.810	.000
Questions 4 & 14: Executive/Sponsor Communication	Between groups Within groups Total	48.074 24.161 72.235	1 32 33	48.074 .755	63.671	.001
Questions 6 & 16: External communication	Between groups Within groups Total	17.152 27.231 44.382	1 32 33	17.152 .851	20.156	.000

*The two independent sample t-tests require that the difference between the two samples is distributed. This may well not be the case here, so the Mann-Whitney test (which does not require this assumption) was also conducted, with similar predictions for each difference tested.

Table 2. ANOVA Analysis of responses between groups

Factor Analysis (Our determination of significant factors was based on means-between-groups, using ANOVA analysis at .05 confidence level	F value	P value
1. Clear project vision	6403.765	.000
2. Clear goals & objectives	18158.824	.000
3. Clearly communicating project status	18158.824	.000
4. Creating detailed project plans	22162.824	.000
7. Assuring adequate project resources	22162.824	.000
9. Assuring an appropriate project team structure	8562.071	.000
10. Status reporting	6403.765	.000
11. Project tracking & control	10094.374	.000
12. Executive/sponsor involvement	6403.765	.000
15 Implementing good risk management practices	5798.118	.000

Table 3. Project factors impacted by the balanced scorecard

While both projects ran longer than initially planned, both groups reported high self-report scores for "On-time delivery" in the questionnaire. In our view, this is explained by the tendency of this company to set very aggressive timelines that project teams often do not feel are realistic or reasonable. Delivery times, as a consequence, even close to these very aggressive targets can be perceived as a reasonable approximation of acceptable on-time performance by the project teams. While statistically this data only weakly supports the impact of the BSC on actual project performance, we believe that it intuitively supports a notional conclusion showing the potential positive impact of the BSC on project performance.

As previously noted, with the small sample sizes available for this research, we found it difficult to conduct reliable parametric analysis. However, if we assume that the normal mean of responses between the two groups is the same (what we believe is an intuitively acceptable assumption, based on our knowledge of the composition of the project teams in question), then it becomes possible to conduct a basic analysis on each group's responses to key questions. Even given the limitations of a small pilot study, Table 2 shows how the application of the BSC had a definite impact on some key aspects of project management practice.

On the basis of this additional analysis, we find sufficient statistical support in Table 2 to reject the null hypothesis and therefore conclude that the BSC did have a positive impact on the Pip team's project management performance in at least some of the anticipated areas we set out to investigate.

Summarizing the results above into a simple enumerated list indicates that the factors most strongly impacted by the team using the BSC were:

1. On-time delivery (question #1)
2. On-budget delivery (question #2)
3. Executive/Sponsor communications (question #14)
4. External communications (question #16)

The Pip team also felt that it had a direct impact on on-strategy delivery; however, this belief is biased on the BSC method training they received, which deliberately cultivated this belief in order to gain the team's commitment to piloting the BSC approach. Therefore, we have recognized this bias and have not drawn this conclusion as a result.

We expected this final outcome because the entire purpose of applying the methodology is to enable the project team to directly connect their project goals and objectives to measurable strategic outcomes. The Pip team's ability to do this consistently improves its capacity — both internally within the team and externally to the team — to communicate about project outcomes more succinctly.

Most interesting was the Pip project team's belief that the specific factors (listed in Table 3 above) within the generally accepted *PMBOK® Guide* (Project Management Institute, 1996) were positively impacted by the team's use of the BSC at the project level. This is useful not only as a conclusion in this study but also to help other researchers facilitate future research that confirms our initial findings. Our analysis supports the ways that the BSC measures appear to improve project performance in areas such as project communication, monitoring and control, status reporting, and resource management.

While we, along with the project's participants, observed meaningful qualitative contributions — during project execution — in each of the 15 areas listed in Table 3, our statistical analysis of this data makes the differences meaningful at the prescribed confidence level, thus allowing us to also reject the null hypothesis that the BSC had no impact on project performance. Therefore both quantitatively and qualitatively we find support for the value of this approach in project management.

Conclusions

Our pilot study suggests that moving beyond existing internal project communication practices, and using a BSC framework to make strategic measures and connections clearer, can possibly improve a project team's internal performance in traditional deliverables: on-time, on-budget, and on-quality. We propose that this is because using the BSC in project settings facilitates a wider perspective on project management successes and facilitates a team's linking to a wider range of strategic performance indicators that it can use to appropriately develop a clearer project vision and to more clearly monitor and control individual project goals and objectives. Results from our research further suggest that the BSC framework provided project management teams with additional benefits; however, some of these benefits require more attention and further study to draw firm conclusions about the effectiveness of this framework.

One of the most clearly cited benefits of the BSC by the project team is that it is a tool for communicating

with internal and external project stakeholders. The scorecard itself is less significant than the value of its application so long as the process of developing and using this tool increases the effectiveness of communication between the project sponsor, the project management team members, and other project stakeholders. This information was confirmed often during our post-project interviews with all of these groups. As a result of having participated in the development of the project scorecard, we provided each team member with a common communication template to articulate project performance measures and results. We argue that this created a more powerfully committed team that embodied a deep sense of purpose and vision (the essence of good project leadership).

We also argue that using the BSC in the way we have indicated has the benefit of making complex strategy more understandable at the operational level in terms of specific operating targets for the project (project management). The importance of achieving this objective cannot be underestimated since it is the essential value-adding element of improved project management practices within an organization.

We therefore suggest that the process of building a project BSC brings added depth and reliability to any project's business case and to management's ability to provide oversight for achieving the totality of project benefits, the ultimate goal of any well-formed project management methodology. As in a corporate setting, the BSC adds value to participants and promotes more reliable communication and more effective decision-making. We propose that the BSC — with a demonstrated ability to make a strong connection between business strategy and project vision through an understanding of measures and metrics that guide coordinated and deliberate action at the project level — is a valuable tool for project management professionals to adopt and make their own.

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Appendix A – Project Questionnaire

In our continuing quest to improve our methodologies and results with clients, we would appreciate you taking a few minutes to complete the following brief questionnaire. It is designed to have you describe your experiences on this project and your use of the Align360 Project Balanced Scorecard, if applicable. We are interested in understanding its value as a project management tool. Please return this questionnaire immediately to your Align360 project manager.

Demographics

1. Project you are involved with:

_____

2. Have you been with the project since the beginning? *YES* *NO*

3. If not, please indicate in number of months you have been on the project: _____ months.

4. Your title/level within the organization (optional): _____

Your specific project results

Please tell us how well you think your project team did on this project. Using a scale of 1 to 5, with 1 being poor and 5 being excellent, please rate the following project outcomes.

QUESTION	RATING				
1. We delivered our project on-time.	1	2	3	4	5
2. We delivered our project on-budget.	1	2	3	4	5
3. We achieved our project's strategic objective for the company.	1	2	3	4	5
4. Our project team understood how the project fit into the big picture.	1	2	3	4	5
5. We had clear goals and objectives for the project that all project team members understood.	1	2	3	4	5
6. We communicated well with others in the company about our project.	1	2	3	4	5
7. We understood and mitigated project risk as best as we could.	1	2	3	4	5
8. By our team standards, I would consider this project well managed.	1	2	3	4	5

9. Of the factors listed below, please circle any that you feel are critical to managing a project to its successful conclusion (measured as on-time, on-budget, and on-strategy). Please circle all factors that apply.

1. Clear project vision	2. Clear goals & objectives	3. Clearly communicating project status
4. Detailed project plan	5. Detailed work breakdown	6. Detailed staffing plan
7. Adequate resources	8. Formal budget	9. Appropriate project team structure
10. Status reporting	11. Project tracking & control	12. Executive/Sponsor involvement
13. Contingency funds	14. Good project methodology	15. Good risk management practices

10. If you could identify only one of the 15 factors listed in question #9 that is frequently, in your experience, not performed well on projects, which factor would you chose (please identify the number and the description):

_____ Factor Description: _____

Pg 2/... **(Note: Only respond to this section if your team used a project balanced scorecard.)**

On a scale of 1 to 5, please rank your understanding of the impact that using the project balanced scorecard had on the project you were working on. On this scale, 1 means virtually no impact or difference from other projects you have worked; 5 means the scorecard had an immediate and measurable impact on the project's results.

19. Of the factors listed below, please circle any that you feel were strongly impacted by your team's use of the project balanced scorecard (a measurable impact to on-time, on-budget, or on-strategy delivery, as a result of using this tool for this project). Please circle all that apply.

QUESTION	RATING				
11. The project balanced scorecard improved our on-time delivery.	1	2	3	4	5
12. The project balanced scorecard improved our on-budget delivery.	1	2	3	4	5
13. The project's strategic goals were clearer to me using the scorecard.	1	2	3	4	5
14. It improved my ability to communicate with executives about the project's progress.	1	2	3	4	5
15. It improved my ability to communicate with my team about the project's progress.	1	2	3	4	5
16. It improved our project team's ability to communicate with each other.	1	2	3	4	5
17. It made us more aware of project risks.	1	2	3	4	5
18. It helped me manage the project better.	1	2	3	4	5

1. Clear project vision
2. Clear goals & objectives
3. Clearly communicating project status
4. Detailed project plan
5. Detailed work breakdown
6. Detailed staffing plan
7. Adequate resources
8. Formal budget
9. Appropriate project team structure
10. Status reporting
11. Project tracking & control
12. Executive/Sponsor involvement
13. Contingency funds
14. Good project methodology
15. Good risk management practices

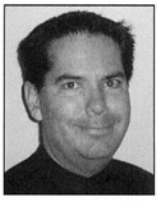
20. If you could choose only 1 of the 15 factors for project success listed in question #19 that was most impacted by your use of the project balanced scorecard, which one would you chose (please note the number and the description below):

_____ Factor description: _____

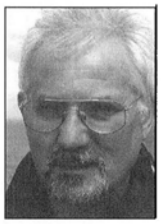
21. Would you use this tool again for future projects? *YES* *NO*

22. Please write, in the space below, any additional comments about using the project balanced scorecard that you wish to pass along to us:

_____



JAMES L. NORRIE as an academic and a consultant, Mr. Norrie has published and presented numerous papers on topics related to information technology strategy, project management, and corporate leadership and governance. As director of the School of Information Technology Management (ITM) at Toronto's Ryerson University (Ryerson University is one of the biggest of its kind in North America and the largest ITM program in Canada), Mr. Norrie teaches undergraduate ITM courses in systems analysis & design, IT strategy and management, ethics and professional practice, and project management at both the intermediate and advanced levels. He is currently a Doctorate in Project Management candidate at RMIT University in Melbourne, Australia and a current member of the Project Management Institute.



DEREK H. T. WALKER is a professor in the School of Business at RMIT University and the program director for that university's Doctor of Project Management program. He is also the director of Research for the CRC in Construction Innovation in Australia. A graduate of RMIT, Aston University, Swinburne Institute of Technology, and the University of Glamorgan, Dr. Walker has written more than 80 peer-reviewed papers and 17 book chapters on topics relating to project management.

Below is a reproduction of the original RMIT ethics approval application for this study. It was subsequently approved by the university's ethics committee in the Graduate School of Business.

BUSINESS HUMAN RESEARCH ETHICS SUB-COMMITTEE

APPLICATION FOR APPROVAL OF PROJECT INVOLVING HUMAN SUBJECTS

Note:
1. **All Applications must be typewritten**
2. **This form is available on the RDU Website at: http://www.rmit.edu.au/browse?SIMID=getcoac7sf66**
3. **This form should only be used for Category 1 and Category 2 projects. Category 3 projects should use the RMIT Human Ethics Application Form, which is available on The University Website at: http://www.rmit.edu.au/browse?SIMID=6sqqx7sd0wkp**

Section A: Approvals and Declarations

Project Title: Improving the Business Results of the PPM Methodology Using A Balanced Strategic Scoring Approach.

Complete this column if you are undertaking **Research for a Degree at RMIT or another university.** (Bachelor/Masters/PhD)**.**	Complete this column if your **Research is Not for Any Degree.**
Investigator	**Principal Investigator**
Name: James L. Norrie Student No: 3028428 Qualifications – B. Com (McMaster), M.Ed (Brock), M.A.Sc. (Waterloo), PMP, CHRP. Currently an Associate Professor, School of Information Technology Management, Ryerson University, Toronto, Ontario, Canada. School: RMIT Business, Bourke Street, Melbourne, Aus. Research Development Unit	Name: Qualifications: School: Phone:

Address: 280 Hillside Drive, Mississauga, Ontario Canada L5M 1G5	Email:
Phone: 416-979-5000, x. 7713 (Ryerson University, Toronto, Ontario, Canada)	
Email: jlnorrie@ryerson.ca	

Degree for which Research is undertaken: **DPM**	
Supervisor:	**Other Investigator/s:**
Name: Dr. Derek Walker Qualifications: PhD, MSc, AIPM School: RMIT Business, RDU	Name/s: Qualifications: School:
Phone: 03-9925-1414	Phone:

Declaration by the investigator(s):

I/We, the undersigned, accept responsibility for the conduct of the research detailed below.

Signed:_____

_____

_____

_____Date:

_____

_____

Signature of Principal Investigator

Signed:_____

_____

_____

_____Date:

_____

_____

Signature(s) of other investigator(s)

Signed:_____

_____

_____

_____Date:

_____

_____

Signature of Supervisor
(if applicable)

Declaration by the Head of School

The project set out in the attached application, including the adequacy of its experimental design and compliance with recognised ethical standards, has the approval of the School/Faculty. I certify that I am prepared to have this project undertaken in my School/Centre/Unit.

Signed:_____

Date:

Signature of Head of School

School:

RMIT Business RDU

Extn:

FOR COMPLETION BY THE INVESTIGATORS AS AN ATTACHMENT

Please refer to the detailed instructions for completing these sections which are given in the Guidelines.

Section B: Project Particulars

1. Title of Project

Improving the Business Results of the PPM Methodology Using A Balanced Strategic Scoring Approach

2. Project description

In keeping with the emphasis of a professional doctorate, this study will seek to explore new dimensions of an established methodology (Portfolio Project Management-"PPM") which has had only limited success as currently described in the literature and used in practice. The investigator believes there may be ways of improving on this methodology in both private and public sector applications through an enhancement related to balanced strategic measurement systems (such as the "Balanced Scorecard") which are already established as useful in the strategic planning domain. By combining the two approaches there may be an opportunity to significantly improve outcomes for companies and organizations choosing to adopt this modified methodology.

This new research project is an extension of work already undertaken by the same investigator in previous studies and seeks to expand the body of knowledge in this particular area.

3. Proposed commencement of project and commencement of data collection

The research will begin September 2003 but is based on work already undertaken by the target organizations previously (thus it is both retrospective and experimental in nature). Formal data collection should be complete by May, 2004 or shortly thereafter subject to any constraints put on the investigator by the organizations involved in the study that delay data collection.

4. Proposed duration of project; proposed finish date

The actual duration of data collection will in the order of six months. Beyond that, the actual duration of the project depends significantly on the initial results obtained and completion of the dissertation.

Funding

5. Source of funding (internal and/or external)

Funding is not required for the project at this time since any costs of research will be covered either by the investigator's current university research initiatives or by grants or cost-recovery directly from the organizations involved in the study because of their keen interest in the results which potentially have a direct and positive financial and strategic benefit on their project management results.

6. Project grant title; proposed duration of grant (where applicable) N/A

Section C: Details of Subjects

1. Number, type, age range, and any special characteristics of subjects

One candidate organization is Farm Credit Canada ("FCC"), a large private sector financial institution based in Regina, SASK. It has approximately 1300 employees of varying ages and approximately 50 – 75 of them will be directly involved in this investigation including the 13 primary executives of the firm including the CEO and VP, Strategy & Knowledge Management. There are no special characteristics of note for any of the subjects and all have been informed by the company that the investigation is being undertaken with their approval and consent only.

The second candidate organization is the Peel Board of Education, one of Canada's largest School Boards with close to 100,000 students and 12,000 staff in its employ. Again, only a percentage (To Be Determined) of the organization's employees will be directly involved in this investigation and this is being undertaken with their approval and consent only.

2. Source of subjects (attach written permission where appropriate)

(see above)

3. Means by which subjects are to be recruited

Subjects will be those employees in the organization directly involved in areas such as strategic planning, project management, and the executive teams. The primary means of recruitment will be their natural participation as employees of the organization in one of the domains of interest to the investigator and with the consent of the company to request their employees participation and co-operation. There are no consequences, positive or negative, for participating or not in the study other than the normal expectations of employees to fulfil their normal obligations to their organization when the organization undertakes a new mission or mandate endorsed by the executive team.

4. Are any of the subjects "vulnerable" or in a dependent relationship with any of the investigators, particularly those involved in recruiting for or conducting the project? NO.

Section D: Project Classification and Estimation of Potential Risk to Subjects

1. Please identify the project classification by assessing the level of risk to subjects

- ☐ **Category 1**
- ☐ Category 2

2. Please explain why you believe this project is category 1 or category 2.

Participation in the survey is purely voluntary but in most cases will be seen as a natural and normal part of their routine jobs with no risk of exposition, embarrassment, adjudication of employment performance or skill levels, etc. Therefore, since the investigation is being conducted at the COMPANY level rather than at the INDIVIDUAL EMPLOYEE level, the outcomes will not be seen as threatening but rather as insightful and rewarding for participants.

3. Please explain how the potential benefits to the subject, or contributions to the general body of knowledge, outweigh the risks.

There are no identifiable risks (as noted above) with this particular method of investigation because it is a case study at the company level and the benefits of proving that this change in methodology can generate tangible business results has the potential to substantially impact the practice of profession project management in companies all over the world if it can be validated and replicated. Therefore, the benefits outweigh any negligible risks involved.

4. Please detail any other ethical issues which may be particularly associated with this project. A checklist of possible ethical issues is given here **as a guide only**

		Yes	**No**
(a)	Is deception to be used?	☐	☐
(b)	Does the data collection process involve access to confidential data without the prior consent of subjects?	☐	☐
(c)	Will subjects be video taped?	☐	☐

(d)	If interviews are to be conducted, will they be tape-recorded?	☐	☐
(e)	Do you plan to use an interpreter?	☐	☐
(f)	Does the research involve any tasks, investigations or processes which may be experienced by subjects as stressful or unpleasant during or after the data collection?	☐	☐
(g)	Are the subjects in any sort of dependent relationship to the investigator/s?	☐	☐
(h)	If you are collecting data using questionnaires or surveys will you be using a code identifier to track respondents or non – respondents for follow up?	☐	☐
(i)	Are you using an organisation external to RMIT to assist in the data collection?	☐	☐
(j)	Are subjects asked to disclose information which may leave them feeling vulnerable or embarrassed?	☐	☐
(k)	Are there, in your opinion, any other ethical issues involved in the research?	☐	☐

Where you have ticked 'YES' to any of the above questions, please give details and state what action you intend to take to ensure that no difficulties arise for your subjects.

Section E:

Informed Consent

1. Attach to your application-

(a) if you sending a postal survey, a copy of the letter to subjects giving information in plain language about the research (see Appendix 1). This should normally be on RMIT letterhead.

(b) if you are undertaking personal interviews or are personally administering a questionnaire to a group of subjects, a copy of the plain language statement (see Appendix 2) and the appropriate prescribed consent form (see Appendix 3). If you are not obtaining consent in writing, please explain why.

In discussions with the executive teams of each company, it was determined that data collection methods being used (group surveys, follow-up interviews, and analysis of actual internal project outcomes) required only the consent of the executive teams which in both cases has been given and documented. It was agreed by all concerned that the burden of individual consent would actually consume more internal resources within their organizations than any benefit that may be derived.

2. Dissemination of results

Will participants be informed that results from the study may appear in publications?

□**Yes**
□**No**

If yes, this information should be included in the plain language statement.

Section F:

Confidentiality of Records

1. Describe the procedures you will adopt to ensure confidentiality.

Nobody but the investigator will be able to tie individual comments or survey data to any individual within the specific organizations. In both the thesis and any publication of the results, participants will not be named but referred to either by title or as "a participant", "a senior executive", etc. In both cases, consent has been obtained from the companies to name their organizations as participants in both the thesis and any subsequent publications subject to the constraint on naming individuals noted above. In the case of FCC, collection and retention of this data is related to Canadian Privacy regulations with strict rules, archiving time limits and right of access and publication.

2. Who will be responsible for security of confidential data?

The investigator, who is currently already an established and published research with a track record of successfully conducting research, publishing results and never having breached client confidentiality.

3. How long will data be held?

The data will be kept by the client organizations for three years or until it is deemed to no longer be useful or required for future research or to support completion of the thesis and any subsequent publication of same.

4. Who will have access to the data, and for what purpose?

The actual data (or copies in either electronic or paper form as appropriate) will be securely kept in the locked academic office of the investigator at Ryerson University, Toronto, Ontario. There is no unauthorized access permitted to the office or the locked filing cabinet in which research results are stored.

PRIVACY

5. Does this project involve the use of personal information obtained from a Commonwealth department or agency?

NO

Section G: Other Issues

PAYMENT TO SUBJECTS

1. Do you propose to pay subjects? If so, how much and for what purpose.

NO

PLACE FOR CONDUCT OF PROJECT

2. Where will the project be conducted?

Normally, at the organization's place of business and occasionally by telephone or conference call if travel is either not possible or not required. E-mail will also be a source of data collection in many cases.

OTHER DECISIONS REGARDING THIS PROJECT

3. Is this project being submitted to another Human Research Ethics Committee, or has it been previously submitted to a Human Research Ethics Committee?

The research methodology was previously approved by the Faculty of Business Research Council at Ryerson University as a part of the investigators current research agenda funded by the university's research grant system.

For any further detail about completion of this form, or for additional supporting material, please contact the Secretary of the Faculty Human Research Ethics Sub Committee (9925 5598)

Case Summaries(a)

	Ques 1	Ques 2	Ques 3	S1	S2	S3	S4	S5	S6	M1	M2	M3	M4
Survey 1	2	1	3	3	5	2	5	5	2	4	5	5	5
Survey 2	2	1	2	3	4	2	5	5	3	4	5	5	4
Survey 3	2	1	1	2	5	2	4	4	5	5	5	5	5
Survey 4	2	1	2	3	4	2	4	4	3	4	5	4	3
Survey 5	2	1	1	2	4	1	5	5	3	5	5	5	5
Survey 6	3	1	2	3	5	1	4	5	3	4	5	5	4
Survey 7	3	1	2	5	5	1	5	5	3	3	5	5	5
Survey 8	3	1	1	2	5	1	4	5	3	5	5	5	4
Survey 9	1	1	2	2	5	2	4	4	3	5	5	5	4
Survey 10	1	1	1	1	3	1	4	4	5	3	4	5	5
Survey 11	1	1	2	4	5	3	5	5	4	4	5	4	4
Survey 12	1	1	2	2	5	2	5	5	3	4	5	5	4
Survey 13	1	1	2	1	4	1	5	5	3	5	5	5	5
Survey 14	1	1	3	4	5	2	5	4	3	3	5	5	3
Survey 15	1	1	3	3	5	2	5	5	2	4	5	5	5
Survey 16	1	1	1	2	5	2	5	4	3	5	5	5	4
Survey 17	1	1	3	2	5	2	4	4	5	3	5	4	4
Survey 18	1	1	1	2	4	2	5	4	5	5	5	5	4
Survey 19	1	1	2	2	5	1	5	5	3	5	5	5	5
Total N	19	19	19	19	19	19	19	19	19	19	19	19	19

Descriptive Statistics – Whole Data Set (19 Interviews)

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Ques 1 - Role	19	1	3	1.58	.769
Ques 2 - Training	19	1	1	1.00	.000
Ques 3 - Tenure	19	1	3	1.89	.737
S1	19	1	5	2.53	1.020
S2	19	3	5	4.63	.597
S3	19	1	3	1.68	.582
S4	19	4	5	4.63	.496
S5	19	4	5	4.58	.507
S6	19	2	5	3.37	.955
M1	19	3	5	4.21	.787
M2	19	4	5	4.95	.229
M3	19	4	5	4.84	.375
M4	19	3	5	4.32	.671
Valid N (listwise)	19				

Note for Question 2: All those who participated in interviews had been trained making any analysis of variance related to this question moot.

Reliability – Strategy Questions (S1 – S6)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.039	.204	6

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.570	1.684	4.632	2.947	2.750	1.592	6
Item Variances	.525	.246	1.041	.795	4.238	.126	6

Hotelling's T-Squared Test

Hotelling's T-Squared	F	df1	df2	Sig
597.991	93.021	5	14	.000

Reliability - Measurement Questions (M1 – M4)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.444	.427	4

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.579	4.211	4.947	.737	1.175	.137	4
Item Variances	.316	.053	.620	.567	11.778	.070	4

Hotelling's T-Squared Test

Hotelling's T-Squared	F	df1	df2	Sig
30.857	9.143	3	16	.001

Appendix O: Detailed Statistical Analysis (PDSB Case Study)

Crosstabs
Demographic Questions 1 and 3 vs Strategy & Measurement Responses

Ques 1 * S1

Crosstab

Count

		S1					
		1	2	3	4	5	Total
Ques 1	1	2	6	1	2	0	11
	2	0	2	3	0	0	5
	3	0	1	1	0	1	3
Total		2	9	5	2	1	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.996(a)	8	.151
Likelihood Ratio	11.670	8	.167
Linear-by-Linear Association	2.453	1	.117
N of Valid Cases	19		

a 14 cells (93.3%) have expected count less than 5. The minimum expected count is .16.

Ques 1 * S2

Crosstab

Count

		S2			
		3	4	5	Total
Ques 1	1	1	2	8	11
	2	0	3	2	5
	3	0	0	3	3
Total		1	5	13	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	5.006(a)	4	.287
Likelihood Ratio	5.665	4	.226
Linear-by-Linear Association	.292	1	.589
N of Valid Cases	19		

a 8 cells (88.9%) have expected count less than 5. The minimum expected count is .16.

Ques 1 * S3

Crosstab

Count

		S3			Total
		1	2	3	
Ques 1	1	3	7	1	11
	2	1	4	0	5
	3	3	0	0	3
Total		7	11	1	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	6.855(a)	4	.144
Likelihood Ratio	7.969	4	.093
Linear-by-Linear Association	3.448	1	.063
N of Valid Cases	19		

a 8 cells (88.9%) have expected count less than 5. The minimum expected count is .16.

Ques 1 * S4

Crosstab

Count

		S4		
		4	5	Total
Ques 1	1	3	8	11
	2	2	3	5
	3	2	1	3
Total		7	12	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.601(a)	2	.449
Likelihood Ratio	1.568	2	.457
Linear-by-Linear Association	1.452	1	.228
N of Valid Cases	19		

a 5 cells (83.3%) have expected count less than 5. The minimum expected count is 1.11.

Ques 1 * S5

Crosstab

Count

		S5		
		4	5	Total
Ques 1	1	6	5	11
	2	2	3	5
	3	0	3	3
Total		8	11	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.889(a)	2	.236
Likelihood Ratio	3.976	2	.137
Linear-by-Linear Association	2.532	1	.112
N of Valid Cases	19		

a 5 cells (83.3%) have expected count less than 5. The minimum expected count is 1.26.

Ques 1 * S6

Crosstab

Count

		S6				
		2	3	4	5	Total
Ques 1	1	1	6	1	3	11
	2	1	3	0	1	5
	3	0	3	0	0	3
Total		2	12	1	4	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.109(a)	6	.795
Likelihood Ratio	4.224	6	.646
Linear-by-Linear Association	.961	1	.327
N of Valid Cases	19		

a 11 cells (91.7%) have expected count less than 5. The minimum expected count is .16.

Ques 1 * M1

Crosstab

Count

		M1			
		3	4	5	Total
Ques 1	1	3	3	5	11
	2	0	3	2	5
	3	1	1	1	3
Total		4	7	8	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.570(a)	4	.632
Likelihood Ratio	3.487	4	.480
Linear-by-Linear Association	.015	1	.902
N of Valid Cases	19		

a 9 cells (100.0%) have expected count less than 5. The minimum expected count is .63.

Ques 1 * M2

Crosstab

Count

		M2		
		4	5	Total
Ques 1	1	1	10	11
	2	0	5	5
	3	0	3	3
Total		1	18	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.768(a)	2	.681
Likelihood Ratio	1.133	2	.567
Linear-by-Linear Association	.599	1	.439
N of Valid Cases	19		

a 5 cells (83.3%) have expected count less than 5. The minimum expected count is .16.

Ques 1 * M3

Crosstab

Count

		M3		Total
		4	5	
Ques 1	1	2	9	11
	2	1	4	5
	3	0	3	3
Total		3	16	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.677(a)	2	.713
Likelihood Ratio	1.139	2	.566
Linear-by-Linear Association	.364	1	.546
N of Valid Cases	19		

a 5 cells (83.3%) have expected count less than 5. The minimum expected count is .47.

Ques 1 * M4

Crosstab

Count

		M4			
		3	4	5	Total
Ques 1	1	1	6	4	11
	2	1	1	3	5
	3	0	2	1	3
Total		2	9	8	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.431(a)	4	.657
Likelihood Ratio	2.811	4	.590
Linear-by-Linear Association	.058	1	.810
N of Valid Cases	19		

a 8 cells (88.9%) have expected count less than 5. The minimum expected count is .32.

Ques 3 * S1

Crosstab

Count

		S1					
		1	2	3	4	5	Total
Ques 3	1	1	5	0	0	0	6
	2	1	3	3	1	1	9
	3	0	1	2	1	0	4
Total		2	9	5	2	1	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.216(a)	8	.413
Likelihood Ratio	10.608	8	.225
Linear-by-Linear Association	3.595	1	.058
N of Valid Cases	19		

a 15 cells (100.0%) have expected count less than 5. The minimum expected count is .21.

Ques 3 * S2

Crosstab

Count

		S2			Total
		3	4	5	
Ques 3	1	1	2	3	6
	2	0	3	6	9
	3	0	0	4	4
Total		1	5	13	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.385(a)	4	.356
Likelihood Ratio	5.512	4	.239
Linear-by-Linear Association	3.049	1	.081
N of Valid Cases	19		

a 8 cells (88.9%) have expected count less than 5. The minimum expected count is .21.

Ques 3 * S3

Crosstab

Count

		S3			
		1	2	3	Total
Ques 3	1	3	3	0	6
	2	4	4	1	9
	3	0	4	0	4
Total		7	11	1	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	4.579(a)	4	.333
Likelihood Ratio	6.205	4	.184
Linear-by-Linear Association	1.689	1	.194
N of Valid Cases	19		

a 8 cells (88.9%) have expected count less than 5. The minimum expected count is .21.

Ques 3 * S4

Crosstab

Count

		S4		
		4	5	Total
Ques 3	1	3	3	6
	2	3	6	9
	3	1	3	4
Total		7	12	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	.735(a)	2	.692
Likelihood Ratio	.734	2	.693
Linear-by-Linear Association	.664	1	.415
N of Valid Cases	19		

a 5 cells (83.3%) have expected count less than 5. The minimum expected count is 1.47.

Ques 3 * S5

Crosstab

Count

		S5		Total
		4	5	
Ques 3	1	4	2	6
	2	2	7	9
	3	2	2	4
Total		8	11	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	3.047(a)	2	.218
Likelihood Ratio	3.146	2	.207
Linear-by-Linear Association	.532	1	.466
N of Valid Cases	19		

a 5 cells (83.3%) have expected count less than 5. The minimum expected count is 1.68.

Ques 3 * S6

Crosstab

Count

		S6				
		2	3	4	5	Total
Ques 3	1	0	3	0	3	6
	2	0	8	1	0	9
	3	2	1	0	1	4
Total		2	12	1	4	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	14.954(a)	6	.021
Likelihood Ratio	15.473	6	.017
Linear-by-Linear Association	3.102	1	.078
N of Valid Cases	19		

a 11 cells (91.7%) have expected count less than 5. The minimum expected count is .21.

Ques 3 * M1

Crosstab

Count

		M1			
		3	4	5	Total
Ques 3	1	1	0	5	6
	2	1	5	3	9
	3	2	2	0	4
Total		4	7	8	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	9.594(a)	4	.048
Likelihood Ratio	12.469	4	.014
Linear-by-Linear Association	5.129	1	.024
N of Valid Cases	19		

a 9 cells (100.0%) have expected count less than 5. The minimum expected count is .84.

Ques 3 * M2

Crosstab

Count

		M2		
		4	5	Total
Ques 3	1	1	5	6
	2	0	9	9
	3	0	4	4
Total		1	18	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.287(a)	2	.319
Likelihood Ratio	2.429	2	.297
Linear-by-Linear Association	1.554	1	.213
N of Valid Cases	19		

a 4 cells (66.7%) have expected count less than 5. The minimum expected count is .21.

Ques 3 * M3

Crosstab

Count

		M3		
		4	5	Total
Ques 3	1	0	6	6
	2	2	7	9
	3	1	3	4
Total		3	16	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	1.660(a)	2	.436
Likelihood Ratio	2.541	2	.281
Linear-by-Linear Association	1.260	1	.262
N of Valid Cases	19		

a 4 cells (66.7%) have expected count less than 5. The minimum expected count is .63.

Ques 3 * M4

Crosstab

Count

		M4			
		3	4	5	Total
Ques 3	1	0	3	3	6
	2	1	5	3	9
	3	1	1	2	4
Total		2	9	8	19

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	2.302(a)	4	.680
Likelihood Ratio	2.795	4	.593
Linear-by-Linear Association	.425	1	.515
N of Valid Cases	19		

a 9 cells (100.0%) have expected count less than 5. The minimum expected count is .42.

Comparison of Means – Before & After Questions (S1/2 and S3/4)

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	S1	2.53	19	1.020	.234
	S2	4.63	19	.597	.137

Correlations

		N	Correlation	Sig.
Pair 1	S1 & S2	19	.427	.068

Paired T-Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	S1 - S2	-2.105	.937	.215	-2.557	-1.654	-9.798	18	.000

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	S3	1.68	19	.582	.134
	S4	4.63	19	.496	.114

Correlations

		N	Correlation	Sig.
Pair 1	S3 & S4	19	.152	.535

Paired T-Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	S3 - S4	-2.947	.705	.162	-3.287	-2.608	-18.222	18	.000

APPENDIX P: COPY OF THE PDSB SURVEY INSTRUMENT

Demographics:

1. Identify the Respondent's Level:
   Area Superintendent Central Superintendent Directors Office

2. Did the Respondent Attend the Training? YES NO

3. Tenure in Current Job: Less than 2 years 2 – 5 years 5+ years

Strategy: On a scale of 1(less) to 5 (more), please indicate your answers to the following questions:

		Less				***More***
1.	My understanding of our organization's strategy before this project was…	1	2	3	4	5
2.	My understanding of our organization's strategy after this project was…	1	2	3	4	5
3.	Our ability to connect proposed projects to our strategy before this project was…	1	2	3	4	5
4.	Our ability to connect proposed projects to our strategy after this project was…	1	2	3	4	5
5.	Indicate how valuable this project was to the organization in your opinion…	1	2	3	4	5
6.	Indicate how time consuming you found this project to participate in…	1	2	3	4	5

Measures: On a scale of 1(less) to 5 (more), please indicate your answers to the following questions:

		Less				***More***
7.	Our *report card* helps me understand our strategy better…	1	2	3	4	5
8.	Our *report card* helps me explain our strategy to my team…	1	2	3	4	5
9.	Our *report card* helps me pick the best projects…	1	2	3	4	5
10	Our *report card* helps me align resources to our priorities…	1	2	3	4	5

APPENDIX Q: COPY OF THE PLASP SURVEY INSTRUMENT

RMIT/PLASP Case Study Questionnaire
Evaluation of Outcomes

February, 2005

Thank you for your participation as a member of the PLASP Balanced Scorecard project team. I hope your experiences were as valuable for you as they were value-adding to the team. As a practicing academic, I use opportunities such as this one to evaluate how effectively we are translating theory into practice and it would be helpful if you would share your opinions with me on this project in that regard. This is strictly a ***voluntary survey*** *and there are* ***no consequences or benefits professionally*** *to you from completing it or not. We have the permission of your organization in advance to solicit your participation. The survey is done anonymously and the results will only be shared/published in the aggregate. This survey has been approved by the Research Ethics Committee at RMIT as non-invasive and it does not attempt to collect any personal information beyond the scope of this research project. If you wish to participate, please completely answer as many of the following sections as possible.*

1. Strategic Clarity

Within the context of having participated on the team, please comment on the following:

BEFORE participating on this team, my understanding of PLASP's strategy was clear.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
AFTER participating on this team, my understanding of PLASP's strategy is clearer.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
The team's output (strategy map, measures, process spiral) will communicate our strategy across the organization clearly.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
There was a **personal benefit** to me from participating on this team.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
There was an **organizational benefit** to me from participating on this team.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

Please add any comments you have on this process that you feel would be helpful in interpreting your responses noted above:

_____
_____
_____

I would recommend this process to another organization as having high value.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

2. Process Quality/Impact

Within the context of having participated on the team, please comment on the following:

BEFORE we began, I thought PLASP's internal processes were efficient.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
BEFORE we began, I thought PLASP's internal processes were effective.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
AFTER we finish, I think PLASP's internal processes will be more efficient.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
AFTER we finish, I think PLASP's internal processes will be more effective.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

Please add any comments you have on this process that you feel would be helpful in interpreting your responses noted above:

_____
_____
_____
_____

This effort had a beneficial effect on my understanding of business process generally.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
The return from BSC (Balanced Scorecard) exceeds the effort spent.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

Please briefly note below the three most valuable things you believe the organization will achieve as a result of this process:

1._____
_____.

2._____
_____.

3._____
_____.

3. Project Selection/Execution

Within the context of having participated on the team, please comment on the following:

BEFORE we began, PLASP had too many projects underway at the same time.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
AFTER we finish, PLASP will have too many projects underway at the same time.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
BEFORE we began, I had difficulty determining which projects were more strategic.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
AFTER we finish, I will have difficulty determining which projects are more strategic.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

In the past when projects were being considered, please rate the factors which you felt were more important and likely to be considered by the executive team when selecting or prioritizing which projects to do both **BEFORE** and **AFTER** this process is implemented. To do this, rank each factor from 1 to 10 with 1 being least important and 10 being the most important as shown below (do not use any number more than once):

FACTOR (**Before**)	Rank	FACTOR (**After**)	Rank
Who the project sponsor is.		Who the project sponsor is.	
What the financial benefits are.		What the financial benefits are.	
What the strategic fit is.		What the strategic fit is.	
If we had done similar stuff before.		If we had done similar stuff before.	
Capital investment required.		Capital investment required.	
Impact on program quality.		Impact on program quality.	
Measurable benefits.		Measurable benefits.	
Customer perspective.		Customer perspective.	
Quality of the project proposal.		Quality of the project proposal.	
Project resources required.		Project resources required.	

Rating Scale Reminder: 1 is least important and 10 is the most important factor…

Since one of the major benefits of clarifying your organization's strategy is to improve performance, please assess your ability to do the following:

BEFORE we began, I knew how to define a strategic gap and plan a project to fix it.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
AFTER we finished, I knew how to define a strategic gap and plan a project to fix it.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
Learning this process will help me be more strategic in my role within PLASP.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

4. Organization Dynamics

Please think back to when we began this process. With your knowledge of what was done at various steps in the process, please review this list of possible factors and rate their importance in terms of impact on you and/or the organization during the process:

FACTOR	**IMPACT**
Initial training workshop on the methodology.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
Clear executive support to implement this.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
Involvement of staff on the project team.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
The ability to state & measure strategy clearly.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
The fact the method is used in the private sector.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
Reading about others' successes & failures.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
Using outside facilitators to manage meetings.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact

Having consultants available to support us.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
My time commitment required to learn methodology.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact
The time required before results are achieved.	Less Impact 1 2 3 4 5 6 7 8 9 10 More Impact

Please note your level of agreement with these concluding statements about the process:

I think the process is sound.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
I think the process is relevant to us.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
I think the process will generate results for us.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree
I think the process will be accepted by others.	Strongly Disagree 1 2 3 4 5 6 7 8 9 10 Strongly Agree

5. Closing Comments

Please add any other comments you have on anything else related to this process that you feel would be of value to improving the process:

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____.

6. Optional Demographics

It is helpful as a researcher to determine if a response to any of the questions above varies with demographic factors. Answering these is strictly optional but helpful. Please put a check mark in the appropriate place:

My age: _____ 18 – 25 _____ 26 – 35 _____ 36 – 45 _____ 46 – 55 _____ 56+

My gender: _____ female _____ male

My tenure: _____ 0 – 3 years _____ 4 – 6 years _____ 7 – 10 years _____ 10+

My role: _____ site staff_____ site management _____ other _____ head office staff_____ senior management

Have you previously worked with the Balanced Scorecard elsewhere? Yes No

Thanks for your time & attention!

FREQUENCY TABLES BY QUESTION

Before participating on this team, my understanding of PLASP's strategy was clear

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	2	10.0	10.0	10.0
	5	3	15.0	15.0	25.0
	6	1	5.0	5.0	30.0
	7	2	10.0	10.0	40.0
	8	6	30.0	30.0	70.0
	9	3	15.0	15.0	85.0
	Strongly agree	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

After participating on this team, my understanding of PLASP's strategy is clearer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	4	20.0	20.0	20.0
	9	8	40.0	40.0	60.0
	Strongly agree	8	40.0	40.0	100.0
	Total	20	100.0	100.0	

The team's output will comunicate our strategy across the organization clearly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	5.0	5.0	5.0
	6	1	5.0	5.0	10.0
	7	1	5.0	5.0	15.0
	8	5	25.0	25.0	40.0
	9	7	35.0	35.0	75.0
	Strongly agree	5	25.0	25.0	100.0
	Total	20	100.0	100.0	

There was a personal benefit to me from participating on this team

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	2	10.0	10.0	10.0
	8	1	5.0	5.0	15.0
	9	8	40.0	40.0	55.0
	Strongly agree	9	45.0	45.0	100.0
	Total	20	100.0	100.0	

There was an organizational benefit to me from participating on this team

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	9	7	35.0	35.0	35.0
	Strongly agree	13	65.0	65.0	100.0
	Total	20	100.0	100.0	

I would recommend this process to another organization as having high value

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	1	5.0	5.0	5.0
	8	2	10.0	10.0	15.0
	9	7	35.0	35.0	50.0
	Strongly agree	10	50.0	50.0	100.0
	Total	20	100.0	100.0	

Before we began, I thought PLASP's internal processes were efficient

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	5.0	5.0	5.0
	4	2	10.0	10.0	15.0
	5	5	25.0	25.0	40.0
	6	3	15.0	15.0	55.0
	7	6	30.0	30.0	85.0
	8	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

After we finish, I think PLASP's internal processes will be more efficient

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	1	5.0	5.0	5.0
	5	1	5.0	5.0	10.0
	6	1	5.0	5.0	15.0
	8	3	15.0	15.0	30.0
	9	12	60.0	60.0	90.0
	Strongly agree	2	10.0	10.0	100.0
	Total	20	100.0	100.0	

Before we began, I thought PLASP's internal processes were effective

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	2	10.0	10.0	10.0
	5	4	20.0	20.0	30.0
	6	2	10.0	10.0	40.0
	7	7	35.0	35.0	75.0
	8	2	10.0	10.0	85.0
	9	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

After we finish, I think PLASP's internal processes will be more effective

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	2	10.0	10.0	10.0
	8	3	15.0	15.0	25.0
	9	12	60.0	60.0	85.0
	Strongly agree	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

This effort had a beneficial effect on my understanding of business process generally

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	4	20.0	20.0	20.0
	8	10	50.0	50.0	70.0
	9	2	10.0	10.0	80.0
	Strongly agree	4	20.0	20.0	100.0
	Total	20	100.0	100.0	

The return from BSC exceeds the effort spent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	1	5.0	5.3	5.3
	8	9	45.0	47.4	52.6
	9	4	20.0	21.1	73.7
	Strongly agree	5	25.0	26.3	100.0
	Total	19	95.0	100.0	
Missing	System	1	5.0		
Total		20	100.0		

Before we began, PLASP had too many projects underway at the same time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	5.0	5.0	5.0
	3	1	5.0	5.0	10.0
	5	5	25.0	25.0	35.0
	6	1	5.0	5.0	40.0
	7	1	5.0	5.0	45.0
	8	4	20.0	20.0	65.0
	9	4	20.0	20.0	85.0
	Strongly agree	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

After we finish, PLASP will have too many projects underway at the same time

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	5.0	5.0	5.0
	2	2	10.0	10.0	15.0
	3	4	20.0	20.0	35.0
	4	1	5.0	5.0	40.0
	5	2	10.0	10.0	50.0
	6	2	10.0	10.0	60.0
	7	2	10.0	10.0	70.0
	8	4	20.0	20.0	90.0
	9	1	5.0	5.0	95.0
	Strongly agree	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Before we began, I had difficulty determining which projects were more strategic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1	5.0	5.0	5.0
	4	3	15.0	15.0	20.0
	5	3	15.0	15.0	35.0
	6	4	20.0	20.0	55.0
	7	1	5.0	5.0	60.0
	8	4	20.0	20.0	80.0
	9	3	15.0	15.0	95.0
	Strongly agree	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

After we finish, I will have difficulty determining which projects are more strategic

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	6	30.0	30.0	30.0
	2	4	20.0	20.0	50.0
	3	2	10.0	10.0	60.0
	4	2	10.0	10.0	70.0
	5	1	5.0	5.0	75.0
	6	1	5.0	5.0	80.0
	7	2	10.0	10.0	90.0
	8	1	5.0	5.0	95.0
	9	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Who the project sponsor is - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	2	10.0	13.3	13.3
	2	2	10.0	13.3	26.7
	3	1	5.0	6.7	33.3
	5	3	15.0	20.0	53.3
	6	1	5.0	6.7	60.0
	7	1	5.0	6.7	66.7
	8	1	5.0	6.7	73.3
	9	2	10.0	13.3	86.7
	Most important	2	10.0	13.3	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

What the financial benefits are - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	2	10.0	13.3	13.3
	3	1	5.0	6.7	20.0
	4	2	10.0	13.3	33.3
	5	1	5.0	6.7	40.0
	6	4	20.0	26.7	66.7
	7	3	15.0	20.0	86.7
	8	1	5.0	6.7	93.3
	Most important	1	5.0	6.7	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

What the financial benefits are - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	7.1	7.1
	3	1	5.0	7.1	14.3
	4	3	15.0	21.4	35.7
	5	3	15.0	21.4	57.1
	6	2	10.0	14.3	71.4
	7	1	5.0	7.1	78.6
	8	1	5.0	7.1	85.7
	9	1	5.0	7.1	92.9
	Most important	1	5.0	7.1	100.0
	Total	14	70.0	100.0	
Missing	System	6	30.0		
Total		20	100.0		

What the strategic fit is - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	6.3	6.3
	5	3	15.0	18.8	25.0
	6	4	20.0	25.0	50.0
	7	1	5.0	6.3	56.3
	8	5	25.0	31.3	87.5
	Most important	2	10.0	12.5	100.0
	Total	16	80.0	100.0	
Missing	System	4	20.0		
Total		20	100.0		

What the strategic fit is - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	2	10.0	13.3	13.3
	3	1	5.0	6.7	20.0
	4	2	10.0	13.3	33.3
	6	2	10.0	13.3	46.7
	7	1	5.0	6.7	53.3
	Most important	7	35.0	46.7	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

If we had done similar stuff before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	3	15.0	20.0	20.0
	2	1	5.0	6.7	26.7
	3	2	10.0	13.3	40.0
	4	2	10.0	13.3	53.3
	5	2	10.0	13.3	66.7
	7	3	15.0	20.0	86.7
	8	1	5.0	6.7	93.3
	Most important	1	5.0	6.7	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

If we had done similar stuff after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	2	10.0	14.3	14.3
	2	5	25.0	35.7	50.0
	5	3	15.0	21.4	71.4
	7	1	5.0	7.1	78.6
	9	2	10.0	14.3	92.9
	Most important	1	5.0	7.1	100.0
	Total	14	70.0	100.0	
Missing	System	6	30.0		
Total		20	100.0		

Capital investment required - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	6.7	6.7
	2	2	10.0	13.3	20.0
	3	4	20.0	26.7	46.7
	5	3	15.0	20.0	66.7
	6	1	5.0	6.7	73.3
	7	1	5.0	6.7	80.0
	8	2	10.0	13.3	93.3
	9	1	5.0	6.7	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

Capital investment required - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	7.1	7.1
	2	2	10.0	14.3	21.4
	3	2	10.0	14.3	35.7
	4	3	15.0	21.4	57.1
	6	2	10.0	14.3	71.4
	7	1	5.0	7.1	78.6
	8	3	15.0	21.4	100.0
	Total	14	70.0	100.0	
Missing	System	6	30.0		
Total		20	100.0		

Impact on program quality - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	6.3	6.3
	4	2	10.0	12.5	18.8
	6	1	5.0	6.3	25.0
	8	1	5.0	6.3	31.3
	9	5	25.0	31.3	62.5
	Most important	6	30.0	37.5	100.0
	Total	16	80.0	100.0	
Missing	System	4	20.0		
Total		20	100.0		

Impact on program quality - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	6.7	6.7
	6	2	10.0	13.3	20.0
	7	3	15.0	20.0	40.0
	8	2	10.0	13.3	53.3
	9	6	30.0	40.0	93.3
	Most important	1	5.0	6.7	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

Measurable benefits - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	2	10.0	12.5	12.5
	2	1	5.0	6.3	18.8
	3	2	10.0	12.5	31.3
	5	1	5.0	6.3	37.5
	7	3	15.0	18.8	56.3
	8	3	15.0	18.8	75.0
	9	2	10.0	12.5	87.5
	Most important	2	10.0	12.5	100.0
	Total	16	80.0	100.0	
Missing	System	4	20.0		
Total		20	100.0		

Measurable benefits - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	5.0	6.7	6.7
	4	1	5.0	6.7	13.3
	5	2	10.0	13.3	26.7
	6	1	5.0	6.7	33.3
	7	2	10.0	13.3	46.7
	8	2	10.0	13.3	60.0
	9	3	15.0	20.0	80.0
	Most important	3	15.0	20.0	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

Customer perspective - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	3	15.0	18.8	18.8
	3	2	10.0	12.5	31.3
	4	1	5.0	6.3	37.5
	7	2	10.0	12.5	50.0
	8	4	20.0	25.0	75.0
	9	2	10.0	12.5	87.5
	Most important	2	10.0	12.5	100.0
	Total	16	80.0	100.0	
Missing	System	4	20.0		
Total		20	100.0		

Customer perspective - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	2	10.0	13.3	13.3
	3	1	5.0	6.7	20.0
	6	1	5.0	6.7	26.7
	7	2	10.0	13.3	40.0
	8	5	25.0	33.3	73.3
	9	1	5.0	6.7	80.0
	Most important	3	15.0	20.0	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

Quality of the project proposal - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	6.7	6.7
	2	2	10.0	13.3	20.0
	3	2	10.0	13.3	33.3
	4	1	5.0	6.7	40.0
	5	1	5.0	6.7	46.7
	6	2	10.0	13.3	60.0
	7	1	5.0	6.7	66.7
	8	1	5.0	6.7	73.3
	9	3	15.0	20.0	93.3
	Most important	1	5.0	6.7	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

Quality of the project proposal - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	7.1	7.1
	2	1	5.0	7.1	14.3
	3	2	10.0	14.3	28.6
	4	1	5.0	7.1	35.7
	5	3	15.0	21.4	57.1
	6	1	5.0	7.1	64.3
	7	1	5.0	7.1	71.4
	8	3	15.0	21.4	92.9
	Most important	1	5.0	7.1	100.0
	Total	14	70.0	100.0	
Missing	System	6	30.0		
Total		20	100.0		

Project resources required - before

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	6.7	6.7
	2	2	10.0	13.3	20.0
	4	5	25.0	33.3	53.3
	5	1	5.0	6.7	60.0
	6	3	15.0	20.0	80.0
	7	1	5.0	6.7	86.7
	8	1	5.0	6.7	93.3
	9	1	5.0	6.7	100.0
	Total	15	75.0	100.0	
Missing	System	5	25.0		
Total		20	100.0		

Project resources required - after

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least important	1	5.0	7.1	7.1
	2	2	10.0	14.3	21.4
	3	1	5.0	7.1	28.6
	4	2	10.0	14.3	42.9
	5	1	5.0	7.1	50.0
	6	1	5.0	7.1	57.1
	7	1	5.0	7.1	64.3
	8	3	15.0	21.4	85.7
	9	2	10.0	14.3	100.0
	Total	14	70.0	100.0	
Missing	System	6	30.0		
Total		20	100.0		

Before we began, I knew how to define a strategic gap and plan a project to fix it

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	2	10.0	10.0	10.0
	2	3	15.0	15.0	25.0
	3	1	5.0	5.0	30.0
	4	1	5.0	5.0	35.0
	5	3	15.0	15.0	50.0
	6	2	10.0	10.0	60.0
	7	5	25.0	25.0	85.0
	8	1	5.0	5.0	90.0
	Strongly agree	2	10.0	10.0	100.0
	Total	20	100.0	100.0	

After we finish, I knew how to define a strategic gap and plan a project to fix it

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	1	5.0	5.0	5.0
	5	1	5.0	5.0	10.0
	6	1	5.0	5.0	15.0
	7	4	20.0	20.0	35.0
	8	7	35.0	35.0	70.0
	9	5	25.0	25.0	95.0
	Strongly agree	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Learning this process will help me be more strategic in my role within PLASP

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	1	5.0	5.0	5.0
	8	7	35.0	35.0	40.0
	9	7	35.0	35.0	75.0
	Strongly agree	5	25.0	25.0	100.0
	Total	20	100.0	100.0	

Initial training workshop on the methodology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	5.0	5.0	5.0
	5	1	5.0	5.0	10.0
	7	3	15.0	15.0	25.0
	8	5	25.0	25.0	50.0
	9	7	35.0	35.0	85.0
	Most impact	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

Clear executive support to implement this

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	5.0	5.0	5.0
	7	2	10.0	10.0	15.0
	8	1	5.0	5.0	20.0
	9	8	40.0	40.0	60.0
	Most impact	8	40.0	40.0	100.0
	Total	20	100.0	100.0	

Involvement of staff on the project team

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	1	5.0	5.0	5.0
	8	3	15.0	15.0	20.0
	9	6	30.0	30.0	50.0
	Most impact	10	50.0	50.0	100.0
	Total	20	100.0	100.0	

The ability to state & measure strategy clearly

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	3	15.0	15.0	15.0
	8	4	20.0	20.0	35.0
	9	5	25.0	25.0	60.0
	Most impact	8	40.0	40.0	100.0
	Total	20	100.0	100.0	

The fact the method is used in the private sector

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Least impact	1	5.0	5.0	5.0
	2	2	10.0	10.0	15.0
	3	5	25.0	25.0	40.0
	4	1	5.0	5.0	45.0
	5	2	10.0	10.0	55.0
	6	4	20.0	20.0	75.0
	7	2	10.0	10.0	85.0
	8	2	10.0	10.0	95.0
	9	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Reading about others' successes & failures

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	5.0	5.0	5.0
	4	3	15.0	15.0	20.0
	5	4	20.0	20.0	40.0
	6	3	15.0	15.0	55.0
	7	4	20.0	20.0	75.0
	8	4	20.0	20.0	95.0
	Most impact	1	5.0	5.0	100.0
	Total	20	100.0	100.0	

Using outside facilitators to manage meetings

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6	1	5.0	5.0	5.0
	7	1	5.0	5.0	10.0
	8	3	15.0	15.0	25.0
	9	4	20.0	20.0	45.0
	Most impact	11	55.0	55.0	100.0
	Total	20	100.0	100.0	

Having consultants available to support us

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	1	5.0	5.0	5.0
	8	2	10.0	10.0	15.0
	9	6	30.0	30.0	45.0
	Most impact	11	55.0	55.0	100.0
	Total	20	100.0	100.0	

My time commitment required to learn methodology

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3	1	5.0	5.0	5.0
	5	1	5.0	5.0	10.0
	7	2	10.0	10.0	20.0
	8	4	20.0	20.0	40.0
	9	9	45.0	45.0	85.0
	Most impact	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

The time required before results are achieved

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	5.0	5.0	5.0
	6	2	10.0	10.0	15.0
	7	2	10.0	10.0	25.0
	8	7	35.0	35.0	60.0
	9	6	30.0	30.0	90.0
	Most impact	2	10.0	10.0	100.0
	Total	20	100.0	100.0	

I think the process is sound

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	1	5.0	5.0	5.0
	8	5	25.0	25.0	30.0
	9	5	25.0	25.0	55.0
	Strongly agree	9	45.0	45.0	100.0
	Total	20	100.0	100.0	

I think the process is relevant to us

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	8	2	10.0	10.0	10.0
	9	8	40.0	40.0	50.0
	Strongly agree	10	50.0	50.0	100.0
	Total	20	100.0	100.0	

I think the process will generate results for us

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	7	2	10.0	10.0	10.0
	8	2	10.0	10.0	20.0
	9	3	15.0	15.0	35.0
	Strongly agree	13	65.0	65.0	100.0
	Total	20	100.0	100.0	

I think the process will be accepted by others

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5	1	5.0	5.0	5.0
	6	6	30.0	30.0	35.0
	7	5	25.0	25.0	60.0
	8	2	10.0	10.0	70.0
	9	3	15.0	15.0	85.0
	Strongly agree	3	15.0	15.0	100.0
	Total	20	100.0	100.0	

Have you previously worked with the Balanced Scorecard

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	17	85.0	100.0	100.0
Missing	System	3	15.0		
Total		20	100.0		

Tenure * Before participating on this team, my understanding of PLASP's strategy was clear Crosstabulation

			Before participating on this team, my understanding of PLASP's strategy was clear							
			3	5	6	7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	2	1	0	0	0	0	0	3
		% within Tenure	66.7%	33.3%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	12.5%	6.3%	.0%	.0%	.0%	.0%	.0%	18.8%
	7-10 years	Count	0	1	0	1	1	0	0	3
		% within Tenure	.0%	33.3%	.0%	33.3%	33.3%	.0%	.0%	100.0%
		% of Total	.0%	6.3%	.0%	6.3%	6.3%	.0%	.0%	18.8%
	10+ years	Count	0	0	1	1	3	3	2	10
		% within Tenure	.0%	.0%	10.0%	10.0%	30.0%	30.0%	20.0%	100.0%
		% of Total	.0%	.0%	6.3%	6.3%	18.8%	18.8%	12.5%	62.5%
Total		Count	2	2	1	2	4	3	2	16
		% within Tenure	12.5%	12.5%	6.3%	12.5%	25.0%	18.8%	12.5%	100.0%
		% of Total	12.5%	12.5%	6.3%	12.5%	25.0%	18.8%	12.5%	100.0%

Tenure * After participating on this team, my understanding of PLASP's strategy is clearer Crosstabulation

			After participating on this team, my understanding of PLASP's strategy is clearer			
			8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	2	0	3
		% within Tenure	33.3%	66.7%	.0%	100.0%
		% of Total	6.3%	12.5%	.0%	18.8%
	7-10 years	Count	1	2	0	3
		% within Tenure	33.3%	66.7%	.0%	100.0%
		% of Total	6.3%	12.5%	.0%	18.8%
	10+ years	Count	1	3	6	10
		% within Tenure	10.0%	30.0%	60.0%	100.0%
		% of Total	6.3%	18.8%	37.5%	62.5%
Total		Count	3	7	6	16
		% within Tenure	18.8%	43.8%	37.5%	100.0%
		% of Total	18.8%	43.8%	37.5%	100.0%

Tenure * The team's output will communicate our strategy across the organization clearly Crosstabulation

			The team's output will comunicate our strategy across the organization clearly						
			5	6	7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	1	0	0	1	0	3
		% within Tenure	33.3%	33.3%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	6.3%	6.3%	.0%	.0%	6.3%	.0%	18.8%
	7-10 years	Count	0	0	0	1	2	0	3
		% within Tenure	.0%	.0%	.0%	33.3%	66.7%	.0%	100.0%
		% of Total	.0%	.0%	.0%	6.3%	12.5%	.0%	18.8%
	10+ years	Count	0	0	1	2	3	4	10
		% within Tenure	.0%	.0%	10.0%	20.0%	30.0%	40.0%	100.0%
		% of Total	.0%	.0%	6.3%	12.5%	18.8%	25.0%	62.5%
Total		Count	1	1	1	3	6	4	16
		% within Tenure	6.3%	6.3%	6.3%	18.8%	37.5%	25.0%	100.0%
		% of Total	6.3%	6.3%	6.3%	18.8%	37.5%	25.0%	100.0%

Tenure * There was a personal benefit to me from participating on this team Crosstabulation

			There was a personal benefit to me from participating on this team				
			7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	0	1	1	3
		% within Tenure	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	6.3%	.0%	6.3%	6.3%	18.8%
	7-10 years	Count	0	0	2	1	3
		% within Tenure	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	12.5%	6.3%	18.8%
	10+ years	Count	0	1	4	5	10
		% within Tenure	.0%	10.0%	40.0%	50.0%	100.0%
		% of Total	.0%	6.3%	25.0%	31.3%	62.5%
Total		Count	1	1	7	7	16
		% within Tenure	6.3%	6.3%	43.8%	43.8%	100.0%
		% of Total	6.3%	6.3%	43.8%	43.8%	100.0%

Tenure * There was an organizational benefit to me from participating on this team Crosstabulation

			There was an organizational benefit to me from participating on this team		
			9	Strongly agree	Total
Tenure	4-6 years	Count	2	1	3
		% within Tenure	66.7%	33.3%	100.0%
		% of Total	12.5%	6.3%	18.8%
	7-10 years	Count	1	2	3
		% within Tenure	33.3%	66.7%	100.0%
		% of Total	6.3%	12.5%	18.8%
	10+ years	Count	2	8	10
		% within Tenure	20.0%	80.0%	100.0%
		% of Total	12.5%	50.0%	62.5%
Total		Count	5	11	16
		% within Tenure	31.3%	68.8%	100.0%
		% of Total	31.3%	68.8%	100.0%

Tenure * I would recommend this process to another organization as having high value Crosstabulation

			I would recommend this process to another organization as having high value				
			7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	0	2	1	3
		% within Tenure	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	12.5%	6.3%	18.8%
	7-10 years	Count	0	0	2	1	3
		% within Tenure	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	12.5%	6.3%	18.8%
	10+ years	Count	1	2	1	6	10
		% within Tenure	10.0%	20.0%	10.0%	60.0%	100.0%
		% of Total	6.3%	12.5%	6.3%	37.5%	62.5%
Total		Count	1	2	5	8	16
		% within Tenure	6.3%	12.5%	31.3%	50.0%	100.0%
		% of Total	6.3%	12.5%	31.3%	50.0%	100.0%

Tenure * Before we began, I thought PLASP's internal processes were efficient Crosstabulation

			Before we began, I thought PLASP's internal processes were efficient					
			4	5	6	7	8	Total
Tenure	4-6 years	Count	0	1	2	0	0	3
		% within Tenure	.0%	33.3%	66.7%	.0%	.0%	100.0%
		% of Total	.0%	6.3%	12.5%	.0%	.0%	18.8%
	7-10 years	Count	0	1	0	1	1	3
		% within Tenure	.0%	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	6.3%	.0%	6.3%	6.3%	18.8%
	10+ years	Count	2	3	0	4	1	10
		% within Tenure	20.0%	30.0%	.0%	40.0%	10.0%	100.0%
		% of Total	12.5%	18.8%	.0%	25.0%	6.3%	62.5%
Total		Count	2	5	2	5	2	16
		% within Tenure	12.5%	31.3%	12.5%	31.3%	12.5%	100.0%
		% of Total	12.5%	31.3%	12.5%	31.3%	12.5%	100.0%

Tenure * After we finish, I think PLASP's internal processes will be more efficient Crosstabulation

			After we finish, I think PLASP's internal processes will be more efficient						
			4	5	6	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	1	0	1	1	0	3
		% within Tenure	.0%	33.3%	.0%	33.3%	33.3%	.0%	100.0%
		% of Total	.0%	6.3%	.0%	6.3%	6.3%	.0%	18.8%
	7-10 years	Count	0	0	0	0	3	0	3
		% within Tenure	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	18.8%	.0%	18.8%
	10+ years	Count	1	0	1	1	5	2	10
		% within Tenure	10.0%	.0%	10.0%	10.0%	50.0%	20.0%	100.0%
		% of Total	6.3%	.0%	6.3%	6.3%	31.3%	12.5%	62.5%
Total		Count	1	1	1	2	9	2	16
		% within Tenure	6.3%	6.3%	6.3%	12.5%	56.3%	12.5%	100.0%
		% of Total	6.3%	6.3%	6.3%	12.5%	56.3%	12.5%	100.0%

Tenure * Before we began, I thought PLASP's internal processes were effective Crosstabulation

			Before we began, I thought PLASP's internal processes were effective						
			4	5	6	7	8	9	Total
Tenure	4-6 years	Count	0	1	2	0	0	0	3
		% within Tenure	.0%	33.3%	66.7%	.0%	.0%	.0%	100.0%
		% of Total	.0%	6.3%	12.5%	.0%	.0%	.0%	18.8%
	7-10 years	Count	0	1	0	1	0	1	3
		% within Tenure	.0%	33.3%	.0%	33.3%	.0%	33.3%	100.0%
		% of Total	.0%	6.3%	.0%	6.3%	.0%	6.3%	18.8%
	10+ years	Count	1	2	0	5	1	1	10
		% within Tenure	10.0%	20.0%	.0%	50.0%	10.0%	10.0%	100.0%
		% of Total	6.3%	12.5%	.0%	31.3%	6.3%	6.3%	62.5%
Total		Count	1	4	2	6	1	2	16
		% within Tenure	6.3%	25.0%	12.5%	37.5%	6.3%	12.5%	100.0%
		% of Total	6.3%	25.0%	12.5%	37.5%	6.3%	12.5%	100.0%

Tenure * After we finish, I think PLASP's internal processes will be more effective Crosstabulation

			After we finish, I think PLASP's internal processes will be more effective				
			7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	1	1	0	3
		% within Tenure	33.3%	33.3%	33.3%	.0%	100.0%
		% of Total	6.3%	6.3%	6.3%	.0%	18.8%
	7-10 years	Count	0	0	3	0	3
		% within Tenure	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	18.8%	.0%	18.8%
	10+ years	Count	0	2	5	3	10
		% within Tenure	.0%	20.0%	50.0%	30.0%	100.0%
		% of Total	.0%	12.5%	31.3%	18.8%	62.5%
Total		Count	1	3	9	3	16
		% within Tenure	6.3%	18.8%	56.3%	18.8%	100.0%
		% of Total	6.3%	18.8%	56.3%	18.8%	100.0%

Tenure * This effort had a beneficial effect on my understanding of business process generally Crosstabulation

			This effort had a beneficial effect on my understanding of business process generally				
			7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	3	0	0	3
		% within Tenure	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	18.8%	.0%	.0%	18.8%
	7-10 years	Count	1	1	0	1	3
		% within Tenure	33.3%	33.3%	.0%	33.3%	100.0%
		% of Total	6.3%	6.3%	.0%	6.3%	18.8%
	10+ years	Count	1	5	2	2	10
		% within Tenure	10.0%	50.0%	20.0%	20.0%	100.0%
		% of Total	6.3%	31.3%	12.5%	12.5%	62.5%
Total		Count	2	9	2	3	16
		% within Tenure	12.5%	56.3%	12.5%	18.8%	100.0%
		% of Total	12.5%	56.3%	12.5%	18.8%	100.0%

Tenure * The return from BSC exceeds the effort spent Crosstabulation

			The return from BSC exceeds the effort spent				
			7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	1	1	0	3
		% within Tenure	33.3%	33.3%	33.3%	.0%	100.0%
		% of Total	6.3%	6.3%	6.3%	.0%	18.8%
	7-10 years	Count	0	2	0	1	3
		% within Tenure	.0%	66.7%	.0%	33.3%	100.0%
		% of Total	.0%	12.5%	.0%	6.3%	18.8%
	10+ years	Count	0	5	2	3	10
		% within Tenure	.0%	50.0%	20.0%	30.0%	100.0%
		% of Total	.0%	31.3%	12.5%	18.8%	62.5%
Total		Count	1	8	3	4	16
		% within Tenure	6.3%	50.0%	18.8%	25.0%	100.0%
		% of Total	6.3%	50.0%	18.8%	25.0%	100.0%

Tenure * Before we began, PLASP had too many projects underway at the same time Crosstabulation

			Before we began, PLASP had too many projects underway at the same time								
			2	3	5	6	7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	0	3	0	0	0	0	0	3
		% within Tenure	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	18.8%	.0%	.0%	.0%	.0%	.0%	18.8%
	7-10 years	Count	1	1	1	0	0	0	0	0	3
		% within Tenure	33.3%	33.3%	33.3%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	6.3%	6.3%	6.3%	.0%	.0%	.0%	.0%	.0%	18.8%
	10+ years	Count	0	0	0	1	1	3	2	3	10
		% within Tenure	.0%	.0%	.0%	10.0%	10.0%	30.0%	20.0%	30.0%	100.0%
		% of Total	.0%	.0%	.0%	6.3%	6.3%	18.8%	12.5%	18.8%	62.5%
Total		Count	1	1	4	1	1	3	2	3	16
		% within Tenure	6.3%	6.3%	25.0%	6.3%	6.3%	18.8%	12.5%	18.8%	100.0%
		% of Total	6.3%	6.3%	25.0%	6.3%	6.3%	18.8%	12.5%	18.8%	100.0%

Tenure * After we finish, PLASP will have too many projects underway at the same time Crosstabulation

			After we finish, PLASP will have too many projects underway at the same time										
			Strongly disagree	2	3	4	5	6	7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	0	1	0	1	1	0	0	0	0	3
		% within Tenure	.0%	.0%	33.3%	.0%	33.3%	33.3%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	6.3%	.0%	6.3%	6.3%	.0%	.0%	.0%	.0%	18.8%
	7-10 years	Count	1	1	0	0	1	0	0	0	0	0	3
		% within Tenure	33.3%	33.3%	.0%	.0%	33.3%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	6.3%	6.3%	.0%	.0%	6.3%	.0%	.0%	.0%	.0%	.0%	18.8%
	10+ years	Count	0	0	2	1	0	1	1	3	1	1	10
		% within Tenure	.0%	.0%	20.0%	10.0%	.0%	10.0%	10.0%	30.0%	10.0%	10.0%	100.0%
		% of Total	.0%	.0%	12.5%	6.3%	.0%	6.3%	6.3%	18.8%	6.3%	6.3%	62.5%
Total		Count	1	1	3	1	2	2	1	3	1	1	16
		% within Tenure	6.3%	6.3%	18.8%	6.3%	12.5%	12.5%	6.3%	18.8%	6.3%	6.3%	100.0%
		% of Total	6.3%	6.3%	18.8%	6.3%	12.5%	12.5%	6.3%	18.8%	6.3%	6.3%	100.0%

Tenure * Before we began, I had difficulty determining which projects were more strategic Crosstabulation

			Before we began, I had difficulty determining which projects were more strategic								
			Strongly disagree	4	5	6	7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	0	1	0	0	2	0	0	3
		% within Tenure	.0%	.0%	33.3%	.0%	.0%	66.7%	.0%	.0%	100.0%
		% of Total	.0%	.0%	6.3%	.0%	.0%	12.5%	.0%	.0%	18.8%
	7-10 years	Count	1	0	1	0	0	0	1	0	3
		% within Tenure	33.3%	.0%	33.3%	.0%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	6.3%	.0%	6.3%	.0%	.0%	.0%	6.3%	.0%	18.8%
	10+ years	Count	0	3	0	3	1	1	1	1	10
		% within Tenure	.0%	30.0%	.0%	30.0%	10.0%	10.0%	10.0%	10.0%	100.0%
		% of Total	.0%	18.8%	.0%	18.8%	6.3%	6.3%	6.3%	6.3%	62.5%
Total		Count	1	3	2	3	1	3	2	1	16
		% within Tenure	6.3%	18.8%	12.5%	18.8%	6.3%	18.8%	12.5%	6.3%	100.0%
		% of Total	6.3%	18.8%	12.5%	18.8%	6.3%	18.8%	12.5%	6.3%	100.0%

Tenure * After we finish, I will have difficulty determining which projects are more strategic Crosstabulation

			After we finish, I will have difficulty determining which projects are more strategic								
			Strongly disagree	2	3	4	5	6	7	9	Total
Tenure	4-6 years	Count	1	1	0	0	0	1	0	0	3
		% within Tenure	33.3%	33.3%	.0%	.0%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	6.3%	6.3%	.0%	.0%	.0%	6.3%	.0%	.0%	18.8%
	7-10 years	Count	2	0	0	0	0	0	0	1	3
		% within Tenure	66.7%	.0%	.0%	.0%	.0%	.0%	.0%	33.3%	100.0%
		% of Total	12.5%	.0%	.0%	.0%	.0%	.0%	.0%	6.3%	18.8%
	10+ years	Count	2	2	1	2	1	0	2	0	10
		% within Tenure	20.0%	20.0%	10.0%	20.0%	10.0%	.0%	20.0%	.0%	100.0%
		% of Total	12.5%	12.5%	6.3%	12.5%	6.3%	.0%	12.5%	.0%	62.5%
Total		Count	5	3	1	2	1	1	2	1	16
		% within Tenure	31.3%	18.8%	6.3%	12.5%	6.3%	6.3%	12.5%	6.3%	100.0%
		% of Total	31.3%	18.8%	6.3%	12.5%	6.3%	6.3%	12.5%	6.3%	100.0%

Tenure * Who the project sponsor is - before Crosstabulation

			Who the project sponsor is - before								
			Least important	2	3	5	7	8	9	Most important	Total
Tenure	4-6 years	Count	0	0	0	2	0	0	1	0	3
		% within Tenure	.0%	.0%	.0%	66.7%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	.0%	16.7%	.0%	.0%	8.3%	.0%	25.0%
	7-10 years	Count	0	0	0	0	0	1	0	0	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	8.3%	.0%	.0%	8.3%
	10+ years	Count	2	1	1	1	1	0	1	1	8
		% within Tenure	25.0%	12.5%	12.5%	12.5%	12.5%	.0%	12.5%	12.5%	100.0%
		% of Total	16.7%	8.3%	8.3%	8.3%	8.3%	.0%	8.3%	8.3%	66.7%
Total		Count	2	1	1	3	1	1	2	1	12
		% within Tenure	16.7%	8.3%	8.3%	25.0%	8.3%	8.3%	16.7%	8.3%	100.0%
		% of Total	16.7%	8.3%	8.3%	25.0%	8.3%	8.3%	16.7%	8.3%	100.0%

Tenure * Who the project sponsor is - after Crosstabulation

			Who the project sponsor is - after						
			Least important	2	3	5	9	Most important	Total
Tenure	4-6 years	Count	1	0	0	0	1	1	3
		% within Tenure	33.3%	.0%	.0%	.0%	33.3%	33.3%	100.0%
		% of Total	9.1%	.0%	.0%	.0%	9.1%	9.1%	27.3%
	7-10 years	Count	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	9.1%	.0%	9.1%
	10+ years	Count	3	1	1	1	0	1	7
		% within Tenure	42.9%	14.3%	14.3%	14.3%	.0%	14.3%	100.0%
		% of Total	27.3%	9.1%	9.1%	9.1%	.0%	9.1%	63.6%
Total		Count	4	1	1	1	2	2	11
		% within Tenure	36.4%	9.1%	9.1%	9.1%	18.2%	18.2%	100.0%
		% of Total	36.4%	9.1%	9.1%	9.1%	18.2%	18.2%	100.0%

Tenure * What the financial benefits are - before Crosstabulation

			What the financial benefits are - before							
			Least important	3	4	5	6	7	8	Total
Tenure	4-6 years	Count	2	0	0	0	0	1	0	3
		% within Tenure	66.7%	.0%	.0%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	16.7%	.0%	.0%	.0%	.0%	8.3%	.0%	25.0%
	7-10 years	Count	0	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	8.3%	.0%	8.3%
	10+ years	Count	0	1	1	1	3	1	1	8
		% within Tenure	.0%	12.5%	12.5%	12.5%	37.5%	12.5%	12.5%	100.0%
		% of Total	.0%	8.3%	8.3%	8.3%	25.0%	8.3%	8.3%	66.7%
Total		Count	2	1	1	1	3	3	1	12
		% within Tenure	16.7%	8.3%	8.3%	8.3%	25.0%	25.0%	8.3%	100.0%
		% of Total	16.7%	8.3%	8.3%	8.3%	25.0%	25.0%	8.3%	100.0%

Tenure * What the financial benefits are - after Crosstabulation

			What the financial benefits are - after									
			Least important	3	4	5	6	7	8	9	Most important	Total
Tenure	4-6 years	Count	1	0	1	0	0	0	0	1	0	3
		% within Tenure	33.3%	.0%	33.3%	.0%	.0%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	9.1%	.0%	9.1%	.0%	.0%	.0%	.0%	9.1%	.0%	27.3%
	7-10 years	Count	0	0	0	0	0	0	1	0	0	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	9.1%	.0%	.0%	9.1%
	10+ years	Count	0	1	1	2	1	1	0	0	1	7
		% within Tenure	.0%	14.3%	14.3%	28.6%	14.3%	14.3%	.0%	.0%	14.3%	100.0%
		% of Total	.0%	9.1%	9.1%	18.2%	9.1%	9.1%	.0%	.0%	9.1%	63.6%
Total		Count	1	1	2	2	1	1	1	1	1	11
		% within Tenure	9.1%	9.1%	18.2%	18.2%	9.1%	9.1%	9.1%	9.1%	9.1%	100.0%
		% of Total	9.1%	9.1%	18.2%	18.2%	9.1%	9.1%	9.1%	9.1%	9.1%	100.0%

Tenure * What the strategic fit is - before Crosstabulation

			What the strategic fit is - before						
			Least important	5	6	7	8	Most important	Total
Tenure	4-6 years	Count	1	0	1	0	1	0	3
		% within Tenure	33.3%	.0%	33.3%	.0%	33.3%	.0%	100.0%
		% of Total	7.7%	.0%	7.7%	.0%	7.7%	.0%	23.1%
	7-10 years	Count	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.7%	.0%	7.7%
	10+ years	Count	0	2	2	1	2	2	9
		% within Tenure	.0%	22.2%	22.2%	11.1%	22.2%	22.2%	100.0%
		% of Total	.0%	15.4%	15.4%	7.7%	15.4%	15.4%	69.2%
Total		Count	1	2	3	1	4	2	13
		% within Tenure	7.7%	15.4%	23.1%	7.7%	30.8%	15.4%	100.0%
		% of Total	7.7%	15.4%	23.1%	7.7%	30.8%	15.4%	100.0%

Tenure * What the strategic fit is - after Crosstabulation

			What the strategic fit is - after					
			Least important	4	6	7	Most important	Total
Tenure	4-6 years	Count	1	1	0	0	1	3
		% within Tenure	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	8.3%	8.3%	.0%	.0%	8.3%	25.0%
	7-10 years	Count	0	0	0	0	1	1
		% within Tenure	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	8.3%	8.3%
	10+ years	Count	1	0	2	1	4	8
		% within Tenure	12.5%	.0%	25.0%	12.5%	50.0%	100.0%
		% of Total	8.3%	.0%	16.7%	8.3%	33.3%	66.7%
Total		Count	2	1	2	1	6	12
		% within Tenure	16.7%	8.3%	16.7%	8.3%	50.0%	100.0%
		% of Total	16.7%	8.3%	16.7%	8.3%	50.0%	100.0%

Tenure * If we had done similar stuff before Crosstabulation

			If we had done similar stuff before							
			Least important	2	3	4	7	8	Most important	Total
Tenure	4-6 years	Count	0	0	0	0	1	1	1	3
		% within Tenure	.0%	.0%	.0%	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	8.3%	8.3%	8.3%	25.0%
	7-10 years	Count	0	0	1	0	0	0	0	1
		% within Tenure	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	8.3%	.0%	.0%	.0%	.0%	8.3%
	10+ years	Count	3	1	1	2	1	0	0	8
		% within Tenure	37.5%	12.5%	12.5%	25.0%	12.5%	.0%	.0%	100.0%
		% of Total	25.0%	8.3%	8.3%	16.7%	8.3%	.0%	.0%	66.7%
Total		Count	3	1	2	2	2	1	1	12
		% within Tenure	25.0%	8.3%	16.7%	16.7%	16.7%	8.3%	8.3%	100.0%
		% of Total	25.0%	8.3%	16.7%	16.7%	16.7%	8.3%	8.3%	100.0%

Tenure * If we had done similar stuff after Crosstabulation

			If we had done similar stuff after						
			Least important	2	5	7	9	Most important	Total
Tenure	4-6 years	Count	0	1	1	0	0	1	3
		% within Tenure	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	9.1%	9.1%	.0%	.0%	9.1%	27.3%
	7-10 years	Count	0	0	1	0	0	0	1
		% within Tenure	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	9.1%	.0%	.0%	.0%	9.1%
	10+ years	Count	2	3	0	1	1	0	7
		% within Tenure	28.6%	42.9%	.0%	14.3%	14.3%	.0%	100.0%
		% of Total	18.2%	27.3%	.0%	9.1%	9.1%	.0%	63.6%
Total		Count	2	4	2	1	1	1	11
		% within Tenure	18.2%	36.4%	18.2%	9.1%	9.1%	9.1%	100.0%
		% of Total	18.2%	36.4%	18.2%	9.1%	9.1%	9.1%	100.0%

Tenure * Capital investment required - before Crosstabulation

			Capital investment required - before						
			Least important	2	3	5	6	8	Total
Tenure	4-6 years	Count	0	0	0	1	0	2	3
		% within Tenure	.0%	.0%	.0%	33.3%	.0%	66.7%	100.0%
		% of Total	.0%	.0%	.0%	8.3%	.0%	16.7%	25.0%
	7-10 years	Count	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	8.3%	.0%	8.3%
	10+ years	Count	1	2	3	2	0	0	8
		% within Tenure	12.5%	25.0%	37.5%	25.0%	.0%	.0%	100.0%
		% of Total	8.3%	16.7%	25.0%	16.7%	.0%	.0%	66.7%
Total		Count	1	2	3	3	1	2	12
		% within Tenure	8.3%	16.7%	25.0%	25.0%	8.3%	16.7%	100.0%
		% of Total	8.3%	16.7%	25.0%	25.0%	8.3%	16.7%	100.0%

Tenure * Capital investment required - after Crosstabulation

			Capital investment required - after							
			Least important	2	3	4	6	7	8	Total
Tenure	4-6 years	Count	0	1	0	0	0	1	1	3
		% within Tenure	.0%	33.3%	.0%	.0%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	9.1%	.0%	.0%	.0%	9.1%	9.1%	27.3%
	7-10 years	Count	0	0	0	0	0	0	1	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	9.1%	9.1%
	10+ years	Count	1	1	2	2	1	0	0	7
		% within Tenure	14.3%	14.3%	28.6%	28.6%	14.3%	.0%	.0%	100.0%
		% of Total	9.1%	9.1%	18.2%	18.2%	9.1%	.0%	.0%	63.6%
Total		Count	1	2	2	2	1	1	2	11
		% within Tenure	9.1%	18.2%	18.2%	18.2%	9.1%	9.1%	18.2%	100.0%
		% of Total	9.1%	18.2%	18.2%	18.2%	9.1%	9.1%	18.2%	100.0%

Tenure * Impact on program quality - before Crosstabulation

			Impact on program quality - before					
			4	6	8	9	Most important	Total
Tenure	4-6 years	Count	0	1	0	1	1	3
		% within Tenure	.0%	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	7.7%	.0%	7.7%	7.7%	23.1%
	7-10 years	Count	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.7%	.0%	7.7%
	10+ years	Count	1	0	1	3	4	9
		% within Tenure	11.1%	.0%	11.1%	33.3%	44.4%	100.0%
		% of Total	7.7%	.0%	7.7%	23.1%	30.8%	69.2%
Total		Count	1	1	1	5	5	13
		% within Tenure	7.7%	7.7%	7.7%	38.5%	38.5%	100.0%
		% of Total	7.7%	7.7%	7.7%	38.5%	38.5%	100.0%

Tenure * Impact on program quality - after Crosstabulation

			Impact on program quality - after					
			6	7	8	9	Most important	Total
Tenure	4-6 years	Count	2	0	0	1	0	3
		% within Tenure	66.7%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	16.7%	.0%	.0%	8.3%	.0%	25.0%
	7-10 years	Count	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	8.3%	.0%	8.3%
	10+ years	Count	0	1	2	4	1	8
		% within Tenure	.0%	12.5%	25.0%	50.0%	12.5%	100.0%
		% of Total	.0%	8.3%	16.7%	33.3%	8.3%	66.7%
Total		Count	2	1	2	6	1	12
		% within Tenure	16.7%	8.3%	16.7%	50.0%	8.3%	100.0%
		% of Total	16.7%	8.3%	16.7%	50.0%	8.3%	100.0%

Tenure * Measurable benefits - before Crosstabulation

			Measurable benefits - before								
			Least important	2	3	5	7	8	9	Most important	Total
Tenure	4-6 years	Count	0	0	0	1	1	0	0	1	3
		% within Tenure	.0%	.0%	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	7.7%	7.7%	.0%	.0%	7.7%	23.1%
	7-10 years	Count	0	0	0	0	1	0	0	0	1
		% within Tenure	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.7%	.0%	.0%	.0%	7.7%
	10+ years	Count	1	1	1	0	1	2	2	1	9
		% within Tenure	11.1%	11.1%	11.1%	.0%	11.1%	22.2%	22.2%	11.1%	100.0%
		% of Total	7.7%	7.7%	7.7%	.0%	7.7%	15.4%	15.4%	7.7%	69.2%
Total		Count	1	1	1	1	3	2	2	2	13
		% within Tenure	7.7%	7.7%	7.7%	7.7%	23.1%	15.4%	15.4%	15.4%	100.0%
		% of Total	7.7%	7.7%	7.7%	7.7%	23.1%	15.4%	15.4%	15.4%	100.0%

Tenure * Measurable benefits - after Crosstabulation

			Measurable benefits - after						
			4	5	7	8	9	Most important	Total
Tenure	4-6 years	Count	0	1	1	0	0	1	3
		% within Tenure	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	8.3%	8.3%	.0%	.0%	8.3%	25.0%
	7-10 years	Count	0	0	0	0	0	1	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	8.3%	8.3%
	10+ years	Count	1	1	1	2	2	1	8
		% within Tenure	12.5%	12.5%	12.5%	25.0%	25.0%	12.5%	100.0%
		% of Total	8.3%	8.3%	8.3%	16.7%	16.7%	8.3%	66.7%
Total		Count	1	2	2	2	2	3	12
		% within Tenure	8.3%	16.7%	16.7%	16.7%	16.7%	25.0%	100.0%
		% of Total	8.3%	16.7%	16.7%	16.7%	16.7%	25.0%	100.0%

Tenure * Customer perspective - before Crosstabulation

			Customer perspective - before							
			2	3	4	7	8	9	Most important	Total
Tenure	4-6 years	Count	1	1	0	0	0	0	1	3
		% within Tenure	33.3%	33.3%	.0%	.0%	.0%	.0%	33.3%	100.0%
		% of Total	7.7%	7.7%	.0%	.0%	.0%	.0%	7.7%	23.1%
	7-10 years	Count	0	0	0	0	1	0	0	1
		% within Tenure	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.7%	.0%	.0%	7.7%
	10+ years	Count	1	0	1	2	3	1	1	9
		% within Tenure	11.1%	.0%	11.1%	22.2%	33.3%	11.1%	11.1%	100.0%
		% of Total	7.7%	.0%	7.7%	15.4%	23.1%	7.7%	7.7%	69.2%
Total		Count	2	1	1	2	4	1	2	13
		% within Tenure	15.4%	7.7%	7.7%	15.4%	30.8%	7.7%	15.4%	100.0%
		% of Total	15.4%	7.7%	7.7%	15.4%	30.8%	7.7%	15.4%	100.0%

Tenure * Customer perspective - after Crosstabulation

			Customer perspective - after							
			2	3	6	7	8	9	Most important	Total
Tenure	4-6 years	Count	1	1	0	0	1	0	0	3
		% within Tenure	33.3%	33.3%	.0%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	8.3%	8.3%	.0%	.0%	8.3%	.0%	.0%	25.0%
	7-10 years	Count	0	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	8.3%	.0%	8.3%
	10+ years	Count	0	0	1	2	3	0	2	8
		% within Tenure	.0%	.0%	12.5%	25.0%	37.5%	.0%	25.0%	100.0%
		% of Total	.0%	.0%	8.3%	16.7%	25.0%	.0%	16.7%	66.7%
Total		Count	1	1	1	2	4	1	2	12
		% within Tenure	8.3%	8.3%	8.3%	16.7%	33.3%	8.3%	16.7%	100.0%
		% of Total	8.3%	8.3%	8.3%	16.7%	33.3%	8.3%	16.7%	100.0%

Tenure * Quality of the project proposal - before Crosstabulation

			Quality of the project proposal - before									
			Least important	2	3	4	5	6	7	9	Most important	Total
Tenure	4-6 years	Count	0	1	1	0	0	1	0	0	0	3
		% within Tenure	.0%	33.3%	33.3%	.0%	.0%	33.3%	.0%	.0%	.0%	100.0%
		% of Total	.0%	8.3%	8.3%	.0%	.0%	8.3%	.0%	.0%	.0%	25.0%
	7-10 years	Count	0	0	0	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	.0%	8.3%	.0%	8.3%
	10+ years	Count	1	0	1	1	1	1	1	1	1	8
		% within Tenure	12.5%	.0%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	100.0%
		% of Total	8.3%	.0%	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	8.3%	66.7%
Total		Count	1	1	2	1	1	2	1	2	1	12
		% within Tenure	8.3%	8.3%	16.7%	8.3%	8.3%	16.7%	8.3%	16.7%	8.3%	100.0%
		% of Total	8.3%	8.3%	16.7%	8.3%	8.3%	16.7%	8.3%	16.7%	8.3%	100.0%

Tenure * Quality of the project proposal - after Crosstabulation

			Quality of the project proposal - after								
			Least important	3	4	5	6	7	8	Most important	Total
Tenure	4-6 years	Count	0	1	0	0	0	1	1	0	3
		% within Tenure	.0%	33.3%	.0%	.0%	.0%	33.3%	33.3%	.0%	100.0%
		% of Total	.0%	9.1%	.0%	.0%	.0%	9.1%	9.1%	.0%	27.3%
	7-10 years	Count	0	0	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	9.1%	.0%	9.1%
	10+ years	Count	1	1	1	2	1	0	0	1	7
		% within Tenure	14.3%	14.3%	14.3%	28.6%	14.3%	.0%	.0%	14.3%	100.0%
		% of Total	9.1%	9.1%	9.1%	18.2%	9.1%	.0%	.0%	9.1%	63.6%
Total		Count	1	2	1	2	1	1	2	1	11
		% within Tenure	9.1%	18.2%	9.1%	18.2%	9.1%	9.1%	18.2%	9.1%	100.0%
		% of Total	9.1%	18.2%	9.1%	18.2%	9.1%	9.1%	18.2%	9.1%	100.0%

Tenure * Project resources required - before Crosstabulation

			Project resources required - before						
			2	4	5	6	8	9	Total
Tenure	4-6 years	Count	0	2	0	1	0	0	3
		% within Tenure	.0%	66.7%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	.0%	16.7%	.0%	8.3%	.0%	.0%	25.0%
	7-10 years	Count	0	0	0	0	0	1	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	8.3%	8.3%
	10+ years	Count	2	2	1	2	1	0	8
		% within Tenure	25.0%	25.0%	12.5%	25.0%	12.5%	.0%	100.0%
		% of Total	16.7%	16.7%	8.3%	16.7%	8.3%	.0%	66.7%
Total		Count	2	4	1	3	1	1	12
		% within Tenure	16.7%	33.3%	8.3%	25.0%	8.3%	8.3%	100.0%
		% of Total	16.7%	33.3%	8.3%	25.0%	8.3%	8.3%	100.0%

Tenure * Project resources required - after Crosstabulation

			Project resources required - after							Total
			2	3	4	5	6	8	9	
Tenure	4-6 years	Count	0	0	0	0	0	2	1	3
		% within Tenure	.0%	.0%	.0%	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	18.2%	9.1%	27.3%
	7-10 years	Count	0	0	0	0	0	1	0	1
		% within Tenure	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	9.1%	.0%	9.1%
	10+ years	Count	2	1	2	1	1	0	0	7
		% within Tenure	28.6%	14.3%	28.6%	14.3%	14.3%	.0%	.0%	100.0%
		% of Total	18.2%	9.1%	18.2%	9.1%	9.1%	.0%	.0%	63.6%
Total		Count	2	1	2	1	1	3	1	11
		% within Tenure	18.2%	9.1%	18.2%	9.1%	9.1%	27.3%	9.1%	100.0%
		% of Total	18.2%	9.1%	18.2%	9.1%	9.1%	27.3%	9.1%	100.0%

Tenure * Before we began, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			Before we began, I knew how to define a strategic gap and plan a project to fix it								
			Strongly disagree	2	3	4	5	6	7	Strongly agree	Total
Tenure	4-6 years	Count	2	1	0	0	0	0	0	0	3
		% within Tenure	66.7%	33.3%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	12.5%	6.3%	.0%	.0%	.0%	.0%	.0%	.0%	18.8%
	7-10 years	Count	0	0	0	0	1	0	1	1	3
		% within Tenure	.0%	.0%	.0%	.0%	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	6.3%	.0%	6.3%	6.3%	18.8%
	10+ years	Count	0	2	1	1	0	1	4	1	10
		% within Tenure	.0%	20.0%	10.0%	10.0%	.0%	10.0%	40.0%	10.0%	100.0%
		% of Total	.0%	12.5%	6.3%	6.3%	.0%	6.3%	25.0%	6.3%	62.5%
Total		Count	2	3	1	1	1	1	5	2	16
		% within Tenure	12.5%	18.8%	6.3%	6.3%	6.3%	6.3%	31.3%	12.5%	100.0%
		% of Total	12.5%	18.8%	6.3%	6.3%	6.3%	6.3%	31.3%	12.5%	100.0%

Tenure * After we finish, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			After we finish, I knew how to define a strategic gap and plan a project to fix it							
			4	5	6	7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	1	1	0	1	0	0	3
		% within Tenure	.0%	33.3%	33.3%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	.0%	6.3%	6.3%	.0%	6.3%	.0%	.0%	18.8%
	7-10 years	Count	0	0	0	1	2	0	0	3
		% within Tenure	.0%	.0%	.0%	33.3%	66.7%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	6.3%	12.5%	.0%	.0%	18.8%
	10+ years	Count	1	0	0	2	2	4	1	10
		% within Tenure	10.0%	.0%	.0%	20.0%	20.0%	40.0%	10.0%	100.0%
		% of Total	6.3%	.0%	.0%	12.5%	12.5%	25.0%	6.3%	62.5%
Total		Count	1	1	1	3	5	4	1	16
		% within Tenure	6.3%	6.3%	6.3%	18.8%	31.3%	25.0%	6.3%	100.0%
		% of Total	6.3%	6.3%	6.3%	18.8%	31.3%	25.0%	6.3%	100.0%

Tenure * Learning this process will help me be more strategic in my role within PLASP Crosstabulation

			Learning this process will help me be more strategic in my role within PLASP			
			8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	2	0	3
		% within Tenure	33.3%	66.7%	.0%	100.0%
		% of Total	6.3%	12.5%	.0%	18.8%
	7-10 years	Count	2	1	0	3
		% within Tenure	66.7%	33.3%	.0%	100.0%
		% of Total	12.5%	6.3%	.0%	18.8%
	10+ years	Count	3	3	4	10
		% within Tenure	30.0%	30.0%	40.0%	100.0%
		% of Total	18.8%	18.8%	25.0%	62.5%
Total		Count	6	6	4	16
		% within Tenure	37.5%	37.5%	25.0%	100.0%
		% of Total	37.5%	37.5%	25.0%	100.0%

Tenure * Initial training workshop on the methodology Crosstabulation

			Initial training workshop on the methodology					
			5	7	8	9	Most impact	Total
Tenure	4-6 years	Count	1	0	1	1	0	3
		% within Tenure	33.3%	.0%	33.3%	33.3%	.0%	100.0%
		% of Total	6.3%	.0%	6.3%	6.3%	.0%	18.8%
	7-10 years	Count	0	0	1	2	0	3
		% within Tenure	.0%	.0%	33.3%	66.7%	.0%	100.0%
		% of Total	.0%	.0%	6.3%	12.5%	.0%	18.8%
	10+ years	Count	0	2	2	4	2	10
		% within Tenure	.0%	20.0%	20.0%	40.0%	20.0%	100.0%
		% of Total	.0%	12.5%	12.5%	25.0%	12.5%	62.5%
Total		Count	1	2	4	7	2	16
		% within Tenure	6.3%	12.5%	25.0%	43.8%	12.5%	100.0%
		% of Total	6.3%	12.5%	25.0%	43.8%	12.5%	100.0%

Tenure * Clear executive support to implement this Crosstabulation

			Clear executive support to implement this					
			5	7	8	9	Most impact	Total
Tenure	4-6 years	Count	0	1	0	2	0	3
		% within Tenure	.0%	33.3%	.0%	66.7%	.0%	100.0%
		% of Total	.0%	6.3%	.0%	12.5%	.0%	18.8%
	7-10 years	Count	0	0	1	2	0	3
		% within Tenure	.0%	.0%	33.3%	66.7%	.0%	100.0%
		% of Total	.0%	.0%	6.3%	12.5%	.0%	18.8%
	10+ years	Count	1	1	0	3	5	10
		% within Tenure	10.0%	10.0%	.0%	30.0%	50.0%	100.0%
		% of Total	6.3%	6.3%	.0%	18.8%	31.3%	62.5%
Total		Count	1	2	1	7	5	16
		% within Tenure	6.3%	12.5%	6.3%	43.8%	31.3%	100.0%
		% of Total	6.3%	12.5%	6.3%	43.8%	31.3%	100.0%

Tenure * Involvment of staff on the project team Crosstabulation

			Involvment of staff on the project team				
			4	8	9	Most impact	Total
Tenure	4-6 years	Count	0	0	1	2	3
		% within Tenure	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	6.3%	12.5%	18.8%
	7-10 years	Count	0	0	2	1	3
		% within Tenure	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	12.5%	6.3%	18.8%
	10+ years	Count	1	1	3	5	10
		% within Tenure	10.0%	10.0%	30.0%	50.0%	100.0%
		% of Total	6.3%	6.3%	18.8%	31.3%	62.5%
Total		Count	1	1	6	8	16
		% within Tenure	6.3%	6.3%	37.5%	50.0%	100.0%
		% of Total	6.3%	6.3%	37.5%	50.0%	100.0%

Tenure * The ability to state & measure strategy clearly Crosstabulation

			The ability to state & measure strategy clearly				
			7	8	9	Most impact	Total
Tenure	4-6 years	Count	0	1	1	1	3
		% within Tenure	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	6.3%	6.3%	6.3%	18.8%
	7-10 years	Count	0	0	2	1	3
		% within Tenure	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	12.5%	6.3%	18.8%
	10+ years	Count	3	2	1	4	10
		% within Tenure	30.0%	20.0%	10.0%	40.0%	100.0%
		% of Total	18.8%	12.5%	6.3%	25.0%	62.5%
Total		Count	3	3	4	6	16
		% within Tenure	18.8%	18.8%	25.0%	37.5%	100.0%
		% of Total	18.8%	18.8%	25.0%	37.5%	100.0%

Tenure * The fact the method is used in the private sector Crosstabulation

			The fact the method is used in the private sector								
			Least impact	2	3	5	6	7	8	9	Total
Tenure	4-6 years	Count	0	0	1	0	1	0	1	0	3
		% within Tenure	.0%	.0%	33.3%	.0%	33.3%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	6.3%	.0%	6.3%	.0%	6.3%	.0%	18.8%
	7-10 years	Count	0	0	1	1	0	0	0	1	3
		% within Tenure	.0%	.0%	33.3%	33.3%	.0%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	6.3%	6.3%	.0%	.0%	.0%	6.3%	18.8%
	10+ years	Count	1	1	3	1	2	1	1	0	10
		% within Tenure	10.0%	10.0%	30.0%	10.0%	20.0%	10.0%	10.0%	.0%	100.0%
		% of Total	6.3%	6.3%	18.8%	6.3%	12.5%	6.3%	6.3%	.0%	62.5%
Total		Count	1	1	5	2	3	1	2	1	16
		% within Tenure	6.3%	6.3%	31.3%	12.5%	18.8%	6.3%	12.5%	6.3%	100.0%
		% of Total	6.3%	6.3%	31.3%	12.5%	18.8%	6.3%	12.5%	6.3%	100.0%

Tenure * Reading about others' successes & failures Crosstabulation

			Reading about others' successes & failures							
			3	4	5	6	7	8	Most impact	Total
Tenure	4-6 years	Count	1	0	0	0	0	2	0	3
		% within Tenure	33.3%	.0%	.0%	.0%	.0%	66.7%	.0%	100.0%
		% of Total	6.3%	.0%	.0%	.0%	.0%	12.5%	.0%	18.8%
	7-10 years	Count	0	0	1	0	2	0	0	3
		% within Tenure	.0%	.0%	33.3%	.0%	66.7%	.0%	.0%	100.0%
		% of Total	.0%	.0%	6.3%	.0%	12.5%	.0%	.0%	18.8%
	10+ years	Count	0	2	2	2	2	1	1	10
		% within Tenure	.0%	20.0%	20.0%	20.0%	20.0%	10.0%	10.0%	100.0%
		% of Total	.0%	12.5%	12.5%	12.5%	12.5%	6.3%	6.3%	62.5%
Total		Count	1	2	3	2	4	3	1	16
		% within Tenure	6.3%	12.5%	18.8%	12.5%	25.0%	18.8%	6.3%	100.0%
		% of Total	6.3%	12.5%	18.8%	12.5%	25.0%	18.8%	6.3%	100.0%

Tenure * Using outside facilitators to manage meetings Crosstabulation

			Using outside facilitators to manage meetings					
			6	7	8	9	Most impact	Total
Tenure	4-6 years	Count	0	0	1	1	1	3
		% within Tenure	.0%	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	6.3%	6.3%	6.3%	18.8%
	7-10 years	Count	1	0	0	0	2	3
		% within Tenure	33.3%	.0%	.0%	.0%	66.7%	100.0%
		% of Total	6.3%	.0%	.0%	.0%	12.5%	18.8%
	10+ years	Count	0	1	1	2	6	10
		% within Tenure	.0%	10.0%	10.0%	20.0%	60.0%	100.0%
		% of Total	.0%	6.3%	6.3%	12.5%	37.5%	62.5%
Total		Count	1	1	2	3	9	16
		% within Tenure	6.3%	6.3%	12.5%	18.8%	56.3%	100.0%
		% of Total	6.3%	6.3%	12.5%	18.8%	56.3%	100.0%

Tenure * Having consultants available to support us Crosstabulation

			Having consultants available to support us				
			7	8	9	Most impact	Total
Tenure	4-6 years	Count	0	0	2	1	3
		% within Tenure	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	12.5%	6.3%	18.8%
	7-10 years	Count	0	1	1	1	3
		% within Tenure	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	6.3%	6.3%	6.3%	18.8%
	10+ years	Count	1	1	2	6	10
		% within Tenure	10.0%	10.0%	20.0%	60.0%	100.0%
		% of Total	6.3%	6.3%	12.5%	37.5%	62.5%
Total		Count	1	2	5	8	16
		% within Tenure	6.3%	12.5%	31.3%	50.0%	100.0%
		% of Total	6.3%	12.5%	31.3%	50.0%	100.0%

Tenure * My time commitment required to learn methodology Crosstabulation

			My time commitment required to learn methodology						
			3	5	7	8	9	Most impact	Total
Tenure	4-6 years	Count	1	0	0	1	1	0	3
		% within Tenure	33.3%	.0%	.0%	33.3%	33.3%	.0%	100.0%
		% of Total	6.3%	.0%	.0%	6.3%	6.3%	.0%	18.8%
	7-10 years	Count	0	0	0	1	2	0	3
		% within Tenure	.0%	.0%	.0%	33.3%	66.7%	.0%	100.0%
		% of Total	.0%	.0%	.0%	6.3%	12.5%	.0%	18.8%
	10+ years	Count	0	1	1	1	4	3	10
		% within Tenure	.0%	10.0%	10.0%	10.0%	40.0%	30.0%	100.0%
		% of Total	.0%	6.3%	6.3%	6.3%	25.0%	18.8%	62.5%
Total		Count	1	1	1	3	7	3	16
		% within Tenure	6.3%	6.3%	6.3%	18.8%	43.8%	18.8%	100.0%
		% of Total	6.3%	6.3%	6.3%	18.8%	43.8%	18.8%	100.0%

Tenure * The time required before results are achieved Crosstabulation

			The time required before results are achieved						
			5	6	7	8	9	Most impact	Total
Tenure	4-6 years	Count	0	1	2	0	0	0	3
		% within Tenure	.0%	33.3%	66.7%	.0%	.0%	.0%	100.0%
		% of Total	.0%	6.3%	12.5%	.0%	.0%	.0%	18.8%
	7-10 years	Count	0	0	0	2	0	1	3
		% within Tenure	.0%	.0%	.0%	66.7%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	12.5%	.0%	6.3%	18.8%
	10+ years	Count	1	1	0	3	4	1	10
		% within Tenure	10.0%	10.0%	.0%	30.0%	40.0%	10.0%	100.0%
		% of Total	6.3%	6.3%	.0%	18.8%	25.0%	6.3%	62.5%
Total		Count	1	2	2	5	4	2	16
		% within Tenure	6.3%	12.5%	12.5%	31.3%	25.0%	12.5%	100.0%
		% of Total	6.3%	12.5%	12.5%	31.3%	25.0%	12.5%	100.0%

Tenure * I think the process is sound Crosstabulation

			I think the process is sound				
			7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	0	1	1	3
		% within Tenure	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	6.3%	.0%	6.3%	6.3%	18.8%
	7-10 years	Count	0	0	1	2	3
		% within Tenure	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	6.3%	12.5%	18.8%
	10+ years	Count	0	3	2	5	10
		% within Tenure	.0%	30.0%	20.0%	50.0%	100.0%
		% of Total	.0%	18.8%	12.5%	31.3%	62.5%
Total		Count	1	3	4	8	16
		% within Tenure	6.3%	18.8%	25.0%	50.0%	100.0%
		% of Total	6.3%	18.8%	25.0%	50.0%	100.0%

Tenure * I think the process is relevant to us Crosstabulation

			I think the process is relevant to us			
			8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	1	1	3
		% within Tenure	33.3%	33.3%	33.3%	100.0%
		% of Total	6.3%	6.3%	6.3%	18.8%
	7-10 years	Count	0	1	2	3
		% within Tenure	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	6.3%	12.5%	18.8%
	10+ years	Count	1	2	7	10
		% within Tenure	10.0%	20.0%	70.0%	100.0%
		% of Total	6.3%	12.5%	43.8%	62.5%
Total		Count	2	4	10	16
		% within Tenure	12.5%	25.0%	62.5%	100.0%
		% of Total	12.5%	25.0%	62.5%	100.0%

Tenure * I think the process will generate results for us Crosstabulation

			I think the process will generate results for us				
			7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	1	1	0	1	3
		% within Tenure	33.3%	33.3%	.0%	33.3%	100.0%
		% of Total	6.3%	6.3%	.0%	6.3%	18.8%
	7-10 years	Count	0	0	0	3	3
		% within Tenure	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	18.8%	18.8%
	10+ years	Count	1	0	2	7	10
		% within Tenure	10.0%	.0%	20.0%	70.0%	100.0%
		% of Total	6.3%	.0%	12.5%	43.8%	62.5%
Total		Count	2	1	2	11	16
		% within Tenure	12.5%	6.3%	12.5%	68.8%	100.0%
		% of Total	12.5%	6.3%	12.5%	68.8%	100.0%

Tenure * I think the process will be accepted by others Crosstabulation

			I think the process will be accepted by others						
			5	6	7	8	9	Strongly agree	Total
Tenure	4-6 years	Count	0	2	1	0	0	0	3
		% within Tenure	.0%	66.7%	33.3%	.0%	.0%	.0%	100.0%
		% of Total	.0%	12.5%	6.3%	.0%	.0%	.0%	18.8%
	7-10 years	Count	0	0	0	0	1	2	3
		% within Tenure	.0%	.0%	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	.0%	.0%	6.3%	12.5%	18.8%
	10+ years	Count	1	4	1	2	1	1	10
		% within Tenure	10.0%	40.0%	10.0%	20.0%	10.0%	10.0%	100.0%
		% of Total	6.3%	25.0%	6.3%	12.5%	6.3%	6.3%	62.5%
Total		Count	1	6	2	2	2	3	16
		% within Tenure	6.3%	37.5%	12.5%	12.5%	12.5%	18.8%	100.0%
		% of Total	6.3%	37.5%	12.5%	12.5%	12.5%	18.8%	100.0%

Tenure * Have you previously worked with the Balanced Scorecard? Crosstabulation

			Have you previously worked with the Balanced Scorecard?	
			no	Total
Tenure	4-6 years	Count	3	3
		% within Tenure	100.0%	100.0%
		% of Total	21.4%	21.4%
	7-10 years	Count	3	3
		% within Tenure	100.0%	100.0%
		% of Total	21.4%	21.4%
	10+ years	Count	8	8
		% within Tenure	100.0%	100.0%
		% of Total	57.1%	57.1%
Total		Count	14	14
		% within Tenure	100.0%	100.0%
		% of Total	100.0%	100.0%

Role * Before participating on this team, my understanding of PLASP's strategy was clear Crosstabulation

			Before participating on this team, my understanding of PLASP's strategy was clear							
			3	5	6	7	8	9	Strongly agree	Total
Role	site staff	Count	2	2	0	1	0	1	0	6
		% within Role	33.3%	33.3%	.0%	16.7%	.0%	16.7%	.0%	100.0%
		% of Total	11.1%	11.1%	.0%	5.6%	.0%	5.6%	.0%	33.3%
	head office staff	Count	0	0	1	0	4	1	1	7
		% within Role	.0%	.0%	14.3%	.0%	57.1%	14.3%	14.3%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	22.2%	5.6%	5.6%	38.9%
	senior management	Count	0	0	0	1	1	1	0	3
		% within Role	.0%	.0%	.0%	33.3%	33.3%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	5.6%	5.6%	.0%	16.7%
	other	Count	0	1	0	0	0	0	1	2
		% within Role	.0%	50.0%	.0%	.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	5.6%	.0%	.0%	.0%	.0%	5.6%	11.1%
Total		Count	2	3	1	2	5	3	2	18
		% within Role	11.1%	16.7%	5.6%	11.1%	27.8%	16.7%	11.1%	100.0%
		% of Total	11.1%	16.7%	5.6%	11.1%	27.8%	16.7%	11.1%	100.0%

Role * After participating on this team, my understanding of PLASP's strategy is clearer Crosstabulation

			After participating on this team, my understanding of PLASP's strategy is clearer			
			8	9	Strongly agree	Total
Role	site staff	Count	2	3	1	6
		% within Role	33.3%	50.0%	16.7%	100.0%
		% of Total	11.1%	16.7%	5.6%	33.3%
	head office staff	Count	0	4	3	7
		% within Role	.0%	57.1%	42.9%	100.0%
		% of Total	.0%	22.2%	16.7%	38.9%
	senior management	Count	0	0	3	3
		% within Role	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	16.7%	16.7%
	other	Count	1	0	1	2
		% within Role	50.0%	.0%	50.0%	100.0%
		% of Total	5.6%	.0%	5.6%	11.1%
Total		Count	3	7	8	18
		% within Role	16.7%	38.9%	44.4%	100.0%
		% of Total	16.7%	38.9%	44.4%	100.0%

Role * The team's output will comunicate our strategy across the organization clearly Crosstabulation

			The team's output will comunicate our strategy across the organization clearly						
			5	6	7	8	9	Strongly agree	Total
Role	site staff	Count	1	1	0	1	3	0	6
		% within Role	16.7%	16.7%	.0%	16.7%	50.0%	.0%	100.0%
		% of Total	5.6%	5.6%	.0%	5.6%	16.7%	.0%	33.3%
	head office staff	Count	0	0	1	1	3	2	7
		% within Role	.0%	.0%	14.3%	14.3%	42.9%	28.6%	100.0%
		% of Total	.0%	.0%	5.6%	5.6%	16.7%	11.1%	38.9%
	senior management	Count	0	0	0	0	1	2	3
		% within Role	.0%	.0%	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	0	0	0	1	0	1	2
		% within Role	.0%	.0%	.0%	50.0%	.0%	50.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	.0%	5.6%	11.1%
Total		Count	1	1	1	3	7	5	18
		% within Role	5.6%	5.6%	5.6%	16.7%	38.9%	27.8%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	38.9%	27.8%	100.0%

Role * There was a personal benefit to me from participating on this team Crosstabulation

			There was a personal benefit to me from participating on this team				
			7	8	9	Strongly agree	Total
Role	site staff	Count	1	0	3	2	6
		% within Role	16.7%	.0%	50.0%	33.3%	100.0%
		% of Total	5.6%	.0%	16.7%	11.1%	33.3%
	head office staff	Count	0	1	3	3	7
		% within Role	.0%	14.3%	42.9%	42.9%	100.0%
		% of Total	.0%	5.6%	16.7%	16.7%	38.9%
	senior management	Count	0	0	0	3	3
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	16.7%	16.7%
	other	Count	0	0	1	1	2
		% within Role	.0%	.0%	50.0%	50.0%	100.0%
		% of Total	.0%	.0%	5.6%	5.6%	11.1%
Total		Count	1	1	7	9	18
		% within Role	5.6%	5.6%	38.9%	50.0%	100.0%
		% of Total	5.6%	5.6%	38.9%	50.0%	100.0%

Role * There was an organizational benefit to me from participating on this team Crosstabulation

			There was an organizational benefit to me from participating on this team		
			9	Strongly agree	Total
Role	site staff	Count	4	2	6
		% within Role	66.7%	33.3%	100.0%
		% of Total	22.2%	11.1%	33.3%
	head office staff	Count	1	6	7
		% within Role	14.3%	85.7%	100.0%
		% of Total	5.6%	33.3%	38.9%
	senior management	Count	0	3	3
		% within Role	.0%	100.0%	100.0%
		% of Total	.0%	16.7%	16.7%
	other	Count	0	2	2
		% within Role	.0%	100.0%	100.0%
		% of Total	.0%	11.1%	11.1%
Total		Count	5	13	18
		% within Role	27.8%	72.2%	100.0%
		% of Total	27.8%	72.2%	100.0%

Role * I would recommend this process to another organization as having high value Crosstabulation

			I would recommend this process to another organization as having high value				
			7	8	9	Strongly agree	Total
Role	site staff	Count	0	1	3	2	6
		% within Role	.0%	16.7%	50.0%	33.3%	100.0%
		% of Total	.0%	5.6%	16.7%	11.1%	33.3%
	head office staff	Count	1	1	3	2	7
		% within Role	14.3%	14.3%	42.9%	28.6%	100.0%
		% of Total	5.6%	5.6%	16.7%	11.1%	38.9%
	senior management	Count	0	0	0	3	3
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	16.7%	16.7%
	other	Count	0	0	0	2	2
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	11.1%	11.1%
Total		Count	1	2	6	9	18
		% within Role	5.6%	11.1%	33.3%	50.0%	100.0%
		% of Total	5.6%	11.1%	33.3%	50.0%	100.0%

Role * Before we began, I thought PLASP's internal processes were efficient Crosstabulation

			Before we began, I thought PLASP's internal processes were efficient						
			3	4	5	6	7	8	Total
Role	site staff	Count	0	0	1	2	2	1	6
		% within Role	.0%	.0%	16.7%	33.3%	33.3%	16.7%	100.0%
		% of Total	.0%	.0%	5.6%	11.1%	11.1%	5.6%	33.3%
	head office staff	Count	0	1	2	1	2	1	7
		% within Role	.0%	14.3%	28.6%	14.3%	28.6%	14.3%	100.0%
		% of Total	.0%	5.6%	11.1%	5.6%	11.1%	5.6%	38.9%
	senior management	Count	0	0	2	0	1	0	3
		% within Role	.0%	.0%	66.7%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	11.1%	.0%	5.6%	.0%	16.7%
	other	Count	1	1	0	0	0	0	2
		% within Role	50.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	5.6%	5.6%	.0%	.0%	.0%	.0%	11.1%
Total		Count	1	2	5	3	5	2	18
		% within Role	5.6%	11.1%	27.8%	16.7%	27.8%	11.1%	100.0%
		% of Total	5.6%	11.1%	27.8%	16.7%	27.8%	11.1%	100.0%

Role * After we finish, I think PLASP's internal processes will be more efficient Crosstabulation

			After we finish, I think PLASP's internal processes will be more efficient						
			4	5	6	8	9	Strongly agree	Total
Role	site staff	Count	0	1	0	1	4	0	6
		% within Role	.0%	16.7%	.0%	16.7%	66.7%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	5.6%	22.2%	.0%	33.3%
	head office staff	Count	1	0	1	2	3	0	7
		% within Role	14.3%	.0%	14.3%	28.6%	42.9%	.0%	100.0%
		% of Total	5.6%	.0%	5.6%	11.1%	16.7%	.0%	38.9%
	senior management	Count	0	0	0	0	1	2	3
		% within Role	.0%	.0%	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	0	0	0	0	2	0	2
		% within Role	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.1%	.0%	11.1%
Total		Count	1	1	1	3	10	2	18
		% within Role	5.6%	5.6%	5.6%	16.7%	55.6%	11.1%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	55.6%	11.1%	100.0%

Role * Before we began, I thought PLASP's internal processes were effective Crosstabulation

			Before we began, I thought PLASP's internal processes were effective						
			4	5	6	7	8	9	Total
Role	site staff	Count	0	1	2	2	0	1	6
		% within Role	.0%	16.7%	33.3%	33.3%	.0%	16.7%	100.0%
		% of Total	.0%	5.6%	11.1%	11.1%	.0%	5.6%	33.3%
	head office staff	Count	1	2	0	2	1	1	7
		% within Role	14.3%	28.6%	.0%	28.6%	14.3%	14.3%	100.0%
		% of Total	5.6%	11.1%	.0%	11.1%	5.6%	5.6%	38.9%
	senior management	Count	0	0	0	3	0	0	3
		% within Role	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	16.7%	.0%	.0%	16.7%
	other	Count	1	1	0	0	0	0	2
		% within Role	50.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	5.6%	5.6%	.0%	.0%	.0%	.0%	11.1%
Total		Count	2	4	2	7	1	2	18
		% within Role	11.1%	22.2%	11.1%	38.9%	5.6%	11.1%	100.0%
		% of Total	11.1%	22.2%	11.1%	38.9%	5.6%	11.1%	100.0%

Role * After we finish, I think PLASP's internal processes will be more effective Crosstabulation

			After we finish, I think PLASP's internal processes will be more effective				
			7	8	9	Strongly agree	Total
Role	site staff	Count	1	1	4	0	6
		% within Role	16.7%	16.7%	66.7%	.0%	100.0%
		% of Total	5.6%	5.6%	22.2%	.0%	33.3%
	head office staff	Count	0	2	4	1	7
		% within Role	.0%	28.6%	57.1%	14.3%	100.0%
		% of Total	.0%	11.1%	22.2%	5.6%	38.9%
	senior management	Count	0	0	1	2	3
		% within Role	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	1	0	1	0	2
		% within Role	50.0%	.0%	50.0%	.0%	100.0%
		% of Total	5.6%	.0%	5.6%	.0%	11.1%
Total		Count	2	3	10	3	18
		% within Role	11.1%	16.7%	55.6%	16.7%	100.0%
		% of Total	11.1%	16.7%	55.6%	16.7%	100.0%

Role * This effort had a beneficial effect on my understanding of business process generally Crosstabulation

			This effort had a beneficial effect on my understanding of business process generally				
			7	8	9	Strongly agree	Total
Role	site staff	Count	1	4	0	1	6
		% within Role	16.7%	66.7%	.0%	16.7%	100.0%
		% of Total	5.6%	22.2%	.0%	5.6%	33.3%
	head office staff	Count	2	3	1	1	7
		% within Role	28.6%	42.9%	14.3%	14.3%	100.0%
		% of Total	11.1%	16.7%	5.6%	5.6%	38.9%
	senior management	Count	0	2	0	1	3
		% within Role	.0%	66.7%	.0%	33.3%	100.0%
		% of Total	.0%	11.1%	.0%	5.6%	16.7%
	other	Count	0	0	1	1	2
		% within Role	.0%	.0%	50.0%	50.0%	100.0%
		% of Total	.0%	.0%	5.6%	5.6%	11.1%
Total		Count	3	9	2	4	18
		% within Role	16.7%	50.0%	11.1%	22.2%	100.0%
		% of Total	16.7%	50.0%	11.1%	22.2%	100.0%

Role * The return from BSC exceeds the effort spent Crosstabulation

			The return from BSC exceeds the effort spent				
			7	8	9	Strongly agree	Total
Role	site staff	Count	1	3	1	1	6
		% within Role	16.7%	50.0%	16.7%	16.7%	100.0%
		% of Total	5.6%	16.7%	5.6%	5.6%	33.3%
	head office staff	Count	0	3	3	1	7
		% within Role	.0%	42.9%	42.9%	14.3%	100.0%
		% of Total	.0%	16.7%	16.7%	5.6%	38.9%
	senior management	Count	0	2	0	1	3
		% within Role	.0%	66.7%	.0%	33.3%	100.0%
		% of Total	.0%	11.1%	.0%	5.6%	16.7%
	other	Count	0	0	0	2	2
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	11.1%	11.1%
Total		Count	1	8	4	5	18
		% within Role	5.6%	44.4%	22.2%	27.8%	100.0%
		% of Total	5.6%	44.4%	22.2%	27.8%	100.0%

Role * Before we began, PLASP had too many projects underway at the same time Crosstabulation

			Before we began, PLASP had too many projects underway at the same time								
			2	3	5	6	7	8	9	Strongly agree	Total
Role	site staff	Count	1	0	4	0	0	1	0	0	6
		% within Role	16.7%	.0%	66.7%	.0%	.0%	16.7%	.0%	.0%	100.0%
		% of Total	5.6%	.0%	22.2%	.0%	.0%	5.6%	.0%	.0%	33.3%
	head office staff	Count	0	1	0	1	0	2	1	2	7
		% within Role	.0%	14.3%	.0%	14.3%	.0%	28.6%	14.3%	28.6%	100.0%
		% of Total	.0%	5.6%	.0%	5.6%	.0%	11.1%	5.6%	11.1%	38.9%
	senior management	Count	0	0	0	0	1	0	1	1	3
		% within Role	.0%	.0%	.0%	.0%	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	5.6%	5.6%	16.7%
	other	Count	0	0	0	0	0	0	2	0	2
		% within Role	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	11.1%	.0%	11.1%
Total		Count	1	1	4	1	1	3	4	3	18
		% within Role	5.6%	5.6%	22.2%	5.6%	5.6%	16.7%	22.2%	16.7%	100.0%
		% of Total	5.6%	5.6%	22.2%	5.6%	5.6%	16.7%	22.2%	16.7%	100.0%

Role * After we finish, PLASP will have too many projects underway at the same time Crosstabulation

			After we finish, PLASP will have too many projects underway at the same time										Total
			Strongly disagree	2	3	4	5	6	7	8	9	Strongly agree	
Role	site staff	Count	0	1	1	1	2	1	0	0	0	0	6
		% within Role	.0%	16.7%	16.7%	16.7%	33.3%	16.7%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	5.6%	5.6%	5.6%	11.1%	5.6%	.0%	.0%	.0%	.0%	33.3%
	head office staff	Count	1	0	2	0	0	1	0	2	0	1	7
		% within Role	14.3%	.0%	28.6%	.0%	.0%	14.3%	.0%	28.6%	.0%	14.3%	100.0%
		% of Total	5.6%	.0%	11.1%	.0%	.0%	5.6%	.0%	11.1%	.0%	5.6%	38.9%
	senior management	Count	0	0	1	0	0	0	1	1	0	0	3
		% within Role	.0%	.0%	33.3%	.0%	.0%	.0%	33.3%	33.3%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	.0%	.0%	5.6%	5.6%	.0%	.0%	16.7%
	other	Count	0	1	0	0	0	0	0	0	1	0	2
		% within Role	.0%	50.0%	.0%	.0%	.0%	.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	.0%	.0%	.0%	.0%	.0%	5.6%	.0%	11.1%
Total		Count	1	2	4	1	2	2	1	3	1	1	18
		% within Role	5.6%	11.1%	22.2%	5.6%	11.1%	11.1%	5.6%	16.7%	5.6%	5.6%	100.0%
		% of Total	5.6%	11.1%	22.2%	5.6%	11.1%	11.1%	5.6%	16.7%	5.6%	5.6%	100.0%

Role * Before we began, I had difficulty determining which projects were more strategic Crosstabulation

			Before we began, I had difficulty determining which projects were more strategic								
			Strongly disagree	4	5	6	7	8	9	Strongly agree	Total
Role	site staff	Count	0	0	2	0	0	3	1	0	6
		% within Role	.0%	.0%	33.3%	.0%	.0%	50.0%	16.7%	.0%	100.0%
		% of Total	.0%	.0%	11.1%	.0%	.0%	16.7%	5.6%	.0%	33.3%
	head office staff	Count	1	1	0	2	0	1	1	1	7
		% within Role	14.3%	14.3%	.0%	28.6%	.0%	14.3%	14.3%	14.3%	100.0%
		% of Total	5.6%	5.6%	.0%	11.1%	.0%	5.6%	5.6%	5.6%	38.9%
	senior management	Count	0	2	0	0	1	0	0	0	3
		% within Role	.0%	66.7%	.0%	.0%	33.3%	.0%	.0%	.0%	100.0%
		% of Total	.0%	11.1%	.0%	.0%	5.6%	.0%	.0%	.0%	16.7%
	other	Count	0	0	0	1	0	0	1	0	2
		% within Role	.0%	.0%	.0%	50.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	.0%	.0%	5.6%	.0%	11.1%
Total		Count	1	3	2	3	1	4	3	1	18
		% within Role	5.6%	16.7%	11.1%	16.7%	5.6%	22.2%	16.7%	5.6%	100.0%
		% of Total	5.6%	16.7%	11.1%	16.7%	5.6%	22.2%	16.7%	5.6%	100.0%

Role * After we finish, I will have difficulty determining which projects are more strategic Crosstabulation

			After we finish, I will have difficulty determining which projects are more strategic								
			Strongly disagree	2	3	4	5	6	7	9	Total
Role	site staff	Count	2	1	1	0	0	1	0	1	6
		% within Role	33.3%	16.7%	16.7%	.0%	.0%	16.7%	.0%	16.7%	100.0%
		% of Total	11.1%	5.6%	5.6%	.0%	.0%	5.6%	.0%	5.6%	33.3%
	head office staff	Count	2	1	0	2	1	0	1	0	7
		% within Role	28.6%	14.3%	.0%	28.6%	14.3%	.0%	14.3%	.0%	100.0%
		% of Total	11.1%	5.6%	.0%	11.1%	5.6%	.0%	5.6%	.0%	38.9%
	senior management	Count	2	1	0	0	0	0	0	0	3
		% within Role	66.7%	33.3%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	11.1%	5.6%	.0%	.0%	.0%	.0%	.0%	.0%	16.7%
	other	Count	0	1	0	0	0	0	1	0	2
		% within Role	.0%	50.0%	.0%	.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	.0%	.0%	.0%	5.6%	.0%	11.1%
Total		Count	6	4	1	2	1	1	2	1	18
		% within Role	33.3%	22.2%	5.6%	11.1%	5.6%	5.6%	11.1%	5.6%	100.0%
		% of Total	33.3%	22.2%	5.6%	11.1%	5.6%	5.6%	11.1%	5.6%	100.0%

Role * Who the project sponsor is - before Crosstabulation

			Who the project sponsor is - before									
			Least important	2	3	5	6	7	8	9	Most important	Total
Role	site staff	Count	0	0	0	2	0	0	0	1	0	3
		% within Role	.0%	.0%	.0%	66.7%	.0%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	.0%	14.3%	.0%	.0%	.0%	7.1%	.0%	21.4%
	head office staff	Count	1	1	0	1	1	1	1	0	1	7
		% within Role	14.3%	14.3%	.0%	14.3%	14.3%	14.3%	14.3%	.0%	14.3%	100.0%
		% of Total	7.1%	7.1%	.0%	7.1%	7.1%	7.1%	7.1%	.0%	7.1%	50.0%
	senior management	Count	1	0	0	0	0	0	0	1	0	2
		% within Role	50.0%	.0%	.0%	.0%	.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	7.1%	.0%	.0%	.0%	.0%	.0%	.0%	7.1%	.0%	14.3%
	other	Count	0	0	1	0	0	0	0	0	1	2
		% within Role	.0%	.0%	50.0%	.0%	.0%	.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	.0%	7.1%	.0%	.0%	.0%	.0%	.0%	7.1%	14.3%
Total		Count	2	1	1	3	1	1	1	2	2	14
		% within Role	14.3%	7.1%	7.1%	21.4%	7.1%	7.1%	7.1%	14.3%	14.3%	100.0%
		% of Total	14.3%	7.1%	7.1%	21.4%	7.1%	7.1%	7.1%	14.3%	14.3%	100.0%

Role * Who the project sponsor is - after Crosstabulation

			Who the project sponsor is – after						
			Least important	2	3	5	9	Most important	Total
Role	site staff	Count	1	0	0	0	1	1	3
		% within Role	33.3%	.0%	.0%	.0%	33.3%	33.3%	100.0%
		% of Total	7.7%	.0%	.0%	.0%	7.7%	7.7%	23.1%
	head office staff	Count	2	1	1	0	1	1	6
		% within Role	33.3%	16.7%	16.7%	.0%	16.7%	16.7%	100.0%
		% of Total	15.4%	7.7%	7.7%	.0%	7.7%	7.7%	46.2%
	senior management	Count	1	0	0	1	0	0	2
		% within Role	50.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	7.7%	.0%	.0%	7.7%	.0%	.0%	15.4%
	other	Count	0	0	1	0	0	1	2
		% within Role	.0%	.0%	50.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	7.7%	15.4%
Total		Count	4	1	2	1	2	3	13
		% within Role	30.8%	7.7%	15.4%	7.7%	15.4%	23.1%	100.0%
		% of Total	30.8%	7.7%	15.4%	7.7%	15.4%	23.1%	100.0%

Role * What the financial benefits are - before Crosstabulation

			What the financial benefits are – before								
			Least important	3	4	5	6	7	8	Most important	Total
Role	site staff	Count	2	0	0	0	0	1	0	0	3
		% within Role	66.7%	.0%	.0%	.0%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	14.3%	.0%	.0%	.0%	.0%	7.1%	.0%	.0%	21.4%
	head office staff	Count	0	1	0	0	2	2	1	1	7
		% within Role	.0%	14.3%	.0%	.0%	28.6%	28.6%	14.3%	14.3%	100.0%
		% of Total	.0%	7.1%	.0%	.0%	14.3%	14.3%	7.1%	7.1%	50.0%
	senior management	Count	0	0	1	0	1	0	0	0	2
		% within Role	.0%	.0%	50.0%	.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.1%	.0%	7.1%	.0%	.0%	.0%	14.3%
	other	Count	0	0	0	1	1	0	0	0	2
		% within Role	.0%	.0%	.0%	50.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.1%	7.1%	.0%	.0%	.0%	14.3%
Total		Count	2	1	1	1	4	3	1	1	14
		% within Role	14.3%	7.1%	7.1%	7.1%	28.6%	21.4%	7.1%	7.1%	100.0%
		% of Total	14.3%	7.1%	7.1%	7.1%	28.6%	21.4%	7.1%	7.1%	100.0%

Role * What the financial benefits are - after Crosstabulation

			What the financial benefits are – after									Total
			Least important	3	4	5	6	7	8	9	Most important	
Role	site staff	Count	1	0	1	0	0	0	0	1	0	3
		% within Role	33.3%	.0%	33.3%	.0%	.0%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	7.7%	.0%	7.7%	.0%	.0%	.0%	.0%	7.7%	.0%	23.1%
	head office staff	Count	0	1	1	1	1	0	1	0	1	6
		% within Role	.0%	16.7%	16.7%	16.7%	16.7%	.0%	16.7%	.0%	16.7%	100.0%
		% of Total	.0%	7.7%	7.7%	7.7%	7.7%	.0%	7.7%	.0%	7.7%	46.2%
	senior management	Count	0	0	0	1	1	0	0	0	0	2
		% within Role	.0%	.0%	.0%	50.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.7%	7.7%	.0%	.0%	.0%	.0%	15.4%
	other	Count	0	0	0	1	0	1	0	0	0	2
		% within Role	.0%	.0%	.0%	50.0%	.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.7%	.0%	7.7%	.0%	.0%	.0%	15.4%
Total		Count	1	1	2	3	2	1	1	1	1	13
		% within Role	7.7%	7.7%	15.4%	23.1%	15.4%	7.7%	7.7%	7.7%	7.7%	100.0%
		% of Total	7.7%	7.7%	15.4%	23.1%	15.4%	7.7%	7.7%	7.7%	7.7%	100.0%

Role * What the strategic fit is - before Crosstabulation

			What the strategic fit is - before						
			Least important	5	6	7	8	Most important	Total
Role	site staff	Count	1	0	1	0	1	0	3
		% within Role	33.3%	.0%	33.3%	.0%	33.3%	.0%	100.0%
		% of Total	6.7%	.0%	6.7%	.0%	6.7%	.0%	20.0%
	head office staff	Count	0	2	1	1	2	1	7
		% within Role	.0%	28.6%	14.3%	14.3%	28.6%	14.3%	100.0%
		% of Total	.0%	13.3%	6.7%	6.7%	13.3%	6.7%	46.7%
	senior management	Count	0	0	1	0	2	0	3
		% within Role	.0%	.0%	33.3%	.0%	66.7%	.0%	100.0%
		% of Total	.0%	.0%	6.7%	.0%	13.3%	.0%	20.0%
	other	Count	0	1	0	0	0	1	2
		% within Role	.0%	50.0%	.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	6.7%	.0%	.0%	.0%	6.7%	13.3%
Total		Count	1	3	3	1	5	2	15
		% within Role	6.7%	20.0%	20.0%	6.7%	33.3%	13.3%	100.0%
		% of Total	6.7%	20.0%	20.0%	6.7%	33.3%	13.3%	100.0%

Role * What the strategic fit is - after Crosstabulation

			What the strategic fit is - after					
			Least important	4	6	7	Most important	Total
Role	site staff	Count	1	1	0	0	1	3
		% within Role	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	7.1%	7.1%	.0%	.0%	7.1%	21.4%
	head office staff	Count	1	0	2	1	2	6
		% within Role	16.7%	.0%	33.3%	16.7%	33.3%	100.0%
		% of Total	7.1%	.0%	14.3%	7.1%	14.3%	42.9%
	senior management	Count	0	0	0	0	3	3
		% within Role	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	21.4%	21.4%
	other	Count	0	1	0	0	1	2
		% within Role	.0%	50.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	7.1%	.0%	.0%	7.1%	14.3%
Total		Count	2	2	2	1	7	14
		% within Role	14.3%	14.3%	14.3%	7.1%	50.0%	100.0%
		% of Total	14.3%	14.3%	14.3%	7.1%	50.0%	100.0%

Role * If we had done similar stuff before Crosstabulation

			If we had done similar stuff before								
			Least important	2	3	4	5	7	8	Most important	Total
Role	site staff	Count	0	0	0	0	0	1	1	1	3
		% within Role	.0%	.0%	.0%	.0%	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	7.1%	7.1%	7.1%	21.4%
	head office staff	Count	2	1	1	1	1	1	0	0	7
		% within Role	28.6%	14.3%	14.3%	14.3%	14.3%	14.3%	.0%	.0%	100.0%
		% of Total	14.3%	7.1%	7.1%	7.1%	7.1%	7.1%	.0%	.0%	50.0%
	senior management	Count	1	0	1	0	0	0	0	0	2
		% within Role	50.0%	.0%	50.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	7.1%	.0%	7.1%	.0%	.0%	.0%	.0%	.0%	14.3%
	other	Count	0	0	0	1	0	1	0	0	2
		% within Role	.0%	.0%	.0%	50.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.1%	.0%	7.1%	.0%	.0%	14.3%
Total		Count	3	1	2	2	1	3	1	1	14
		% within Role	21.4%	7.1%	14.3%	14.3%	7.1%	21.4%	7.1%	7.1%	100.0%
		% of Total	21.4%	7.1%	14.3%	14.3%	7.1%	21.4%	7.1%	7.1%	100.0%

Role * If we had done similar stuff after Crosstabulation

			If we had done similar stuff after						
			Least important	2	5	7	9	Most important	Total
Role	site staff	Count	0	1	1	0	0	1	3
		% within Role	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	7.7%	7.7%	.0%	.0%	7.7%	23.1%
	head office staff	Count	1	1	2	1	1	0	6
		% within Role	16.7%	16.7%	33.3%	16.7%	16.7%	.0%	100.0%
		% of Total	7.7%	7.7%	15.4%	7.7%	7.7%	.0%	46.2%
	senior management	Count	1	1	0	0	0	0	2
		% within Role	50.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	7.7%	7.7%	.0%	.0%	.0%	.0%	15.4%
	other	Count	0	1	0	0	1	0	2
		% within Role	.0%	50.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	7.7%	.0%	.0%	7.7%	.0%	15.4%
Total		Count	2	4	3	1	2	1	13
		% within Role	15.4%	30.8%	23.1%	7.7%	15.4%	7.7%	100.0%
		% of Total	15.4%	30.8%	23.1%	7.7%	15.4%	7.7%	100.0%

Role * Capital investment required - before Crosstabulation

			Capital investment required - before							
			Least important	2	3	5	6	8	9	Total
Role	site staff	Count	0	0	0	1	0	2	0	3
		% within Role	.0%	.0%	.0%	33.3%	.0%	66.7%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.1%	.0%	14.3%	.0%	21.4%
	head office staff	Count	0	1	3	1	1	0	1	7
		% within Role	.0%	14.3%	42.9%	14.3%	14.3%	.0%	14.3%	100.0%
		% of Total	.0%	7.1%	21.4%	7.1%	7.1%	.0%	7.1%	50.0%
	senior management	Count	0	1	0	1	0	0	0	2
		% within Role	.0%	50.0%	.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	7.1%	.0%	7.1%	.0%	.0%	.0%	14.3%
	other	Count	1	0	1	0	0	0	0	2
		% within Role	50.0%	.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	7.1%	.0%	7.1%	.0%	.0%	.0%	.0%	14.3%
Total		Count	1	2	4	3	1	2	1	14
		% within Role	7.1%	14.3%	28.6%	21.4%	7.1%	14.3%	7.1%	100.0%
		% of Total	7.1%	14.3%	28.6%	21.4%	7.1%	14.3%	7.1%	100.0%

Role * Capital investment required - after Crosstabulation

			Capital investment required - after							
			Least important	2	3	4	6	7	8	Total
Role	site staff	Count	0	1	0	0	0	1	1	3
		% within Role	.0%	33.3%	.0%	.0%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	7.7%	.0%	.0%	.0%	7.7%	7.7%	23.1%
	head office staff	Count	0	1	1	2	1	0	1	6
		% within Role	.0%	16.7%	16.7%	33.3%	16.7%	.0%	16.7%	100.0%
		% of Total	.0%	7.7%	7.7%	15.4%	7.7%	.0%	7.7%	46.2%
	senior management	Count	0	0	1	1	0	0	0	2
		% within Role	.0%	.0%	50.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.7%	7.7%	.0%	.0%	.0%	15.4%
	other	Count	1	0	0	0	1	0	0	2
		% within Role	50.0%	.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	7.7%	.0%	.0%	.0%	7.7%	.0%	.0%	15.4%
Total		Count	1	2	2	3	2	1	2	13
		% within Role	7.7%	15.4%	15.4%	23.1%	15.4%	7.7%	15.4%	100.0%
		% of Total	7.7%	15.4%	15.4%	23.1%	15.4%	7.7%	15.4%	100.0%

Role * Impact on program quality - before Crosstabulation

			Impact on program quality - before						
			Least important	4	6	8	9	Most important	Total
Role	site staff	Count	0	0	1	0	1	1	3
		% within Role	.0%	.0%	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	6.7%	.0%	6.7%	6.7%	20.0%
	head office staff	Count	0	2	0	1	2	2	7
		% within Role	.0%	28.6%	.0%	14.3%	28.6%	28.6%	100.0%
		% of Total	.0%	13.3%	.0%	6.7%	13.3%	13.3%	46.7%
	senior management	Count	0	0	0	0	1	2	3
		% within Role	.0%	.0%	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	.0%	.0%	6.7%	13.3%	20.0%
	other	Count	1	0	0	0	1	0	2
		% within Role	50.0%	.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	6.7%	.0%	.0%	.0%	6.7%	.0%	13.3%
Total		Count	1	2	1	1	5	5	15
		% within Role	6.7%	13.3%	6.7%	6.7%	33.3%	33.3%	100.0%
		% of Total	6.7%	13.3%	6.7%	6.7%	33.3%	33.3%	100.0%

Role * Impact on program quality - after Crosstabulation

			Impact on program quality - after						
			Least important	6	7	8	9	Most important	Total
Role	site staff	Count	0	2	0	0	1	0	3
		% within Role	.0%	66.7%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	14.3%	.0%	.0%	7.1%	.0%	21.4%
	head office staff	Count	0	0	2	1	3	0	6
		% within Role	.0%	.0%	33.3%	16.7%	50.0%	.0%	100.0%
		% of Total	.0%	.0%	14.3%	7.1%	21.4%	.0%	42.9%
	senior management	Count	0	0	0	1	1	1	3
		% within Role	.0%	.0%	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	7.1%	7.1%	7.1%	21.4%
	other	Count	1	0	0	0	1	0	2
		% within Role	50.0%	.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	7.1%	.0%	.0%	.0%	7.1%	.0%	14.3%
Total		Count	1	2	2	2	6	1	14
		% within Role	7.1%	14.3%	14.3%	14.3%	42.9%	7.1%	100.0%
		% of Total	7.1%	14.3%	14.3%	14.3%	42.9%	7.1%	100.0%

Role * Measurable benefits - before Crosstabulation

			Measurable benefits - before								
			Least important	2	3	5	7	8	9	Most important	Total
Role	site staff	Count	0	0	0	1	1	0	0	1	3
		% within Role	.0%	.0%	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	6.7%	6.7%	.0%	.0%	6.7%	20.0%
	head office staff	Count	2	0	1	0	2	0	2	0	7
		% within Role	28.6%	.0%	14.3%	.0%	28.6%	.0%	28.6%	.0%	100.0%
		% of Total	13.3%	.0%	6.7%	.0%	13.3%	.0%	13.3%	.0%	46.7%
	senior management	Count	0	0	0	0	0	2	0	1	3
		% within Role	.0%	.0%	.0%	.0%	.0%	66.7%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	13.3%	.0%	6.7%	20.0%
	other	Count	0	1	0	0	0	1	0	0	2
		% within Role	.0%	50.0%	.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	.0%	6.7%	.0%	.0%	.0%	6.7%	.0%	.0%	13.3%
Total		Count	2	1	1	1	3	3	2	2	15
		% within Role	13.3%	6.7%	6.7%	6.7%	20.0%	20.0%	13.3%	13.3%	100.0%
		% of Total	13.3%	6.7%	6.7%	6.7%	20.0%	20.0%	13.3%	13.3%	100.0%

Role * Measurable benefits - after Crosstabulation

			Measurable benefits - after							
			3	4	5	7	8	9	Most important	Total
Role	site staff	Count	0	0	1	1	0	0	1	3
		% within Role	.0%	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	7.1%	7.1%	.0%	.0%	7.1%	21.4%
	head office staff	Count	0	1	1	1	0	2	1	6
		% within Role	.0%	16.7%	16.7%	16.7%	.0%	33.3%	16.7%	100.0%
		% of Total	.0%	7.1%	7.1%	7.1%	.0%	14.3%	7.1%	42.9%
	senior management	Count	0	0	0	0	1	1	1	3
		% within Role	.0%	.0%	.0%	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.1%	7.1%	7.1%	21.4%
	other	Count	1	0	0	0	1	0	0	2
		% within Role	50.0%	.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	7.1%	.0%	.0%	.0%	7.1%	.0%	.0%	14.3%
Total		Count	1	1	2	2	2	3	3	14
		% within Role	7.1%	7.1%	14.3%	14.3%	14.3%	21.4%	21.4%	100.0%
		% of Total	7.1%	7.1%	14.3%	14.3%	14.3%	21.4%	21.4%	100.0%

Role * Customer perspective - before Crosstabulation

			Customer perspective - before							
			2	3	4	7	8	9	Most important	Total
Role	site staff	Count	1	1	0	0	0	0	1	3
		% within Role	33.3%	33.3%	.0%	.0%	.0%	.0%	33.3%	100.0%
		% of Total	6.7%	6.7%	.0%	.0%	.0%	.0%	6.7%	20.0%
	head office staff	Count	1	1	1	0	3	1	0	7
		% within Role	14.3%	14.3%	14.3%	.0%	42.9%	14.3%	.0%	100.0%
		% of Total	6.7%	6.7%	6.7%	.0%	20.0%	6.7%	.0%	46.7%
	senior management	Count	0	0	0	2	0	0	1	3
		% within Role	.0%	.0%	.0%	66.7%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	13.3%	.0%	.0%	6.7%	20.0%
	other	Count	1	0	0	0	1	0	0	2
		% within Role	50.0%	.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	6.7%	.0%	.0%	.0%	6.7%	.0%	.0%	13.3%
Total		Count	3	2	1	2	4	1	2	15
		% within Role	20.0%	13.3%	6.7%	13.3%	26.7%	6.7%	13.3%	100.0%
		% of Total	20.0%	13.3%	6.7%	13.3%	26.7%	6.7%	13.3%	100.0%

Role * Customer perspective - after Crosstabulation

			Customer perspective - after							
			2	3	6	7	8	9	Most important	Total
Role	site staff	Count	1	1	0	0	1	0	0	3
		% within Role	33.3%	33.3%	.0%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	7.1%	7.1%	.0%	.0%	7.1%	.0%	.0%	21.4%
	head office staff	Count	0	0	0	0	4	1	1	6
		% within Role	.0%	.0%	.0%	.0%	66.7%	16.7%	16.7%	100.0%
		% of Total	.0%	.0%	.0%	.0%	28.6%	7.1%	7.1%	42.9%
	senior management	Count	0	0	0	2	0	0	1	3
		% within Role	.0%	.0%	.0%	66.7%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	14.3%	.0%	.0%	7.1%	21.4%
	other	Count	1	0	1	0	0	0	0	2
		% within Role	50.0%	.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	7.1%	.0%	7.1%	.0%	.0%	.0%	.0%	14.3%
Total		Count	2	1	1	2	5	1	2	14
		% within Role	14.3%	7.1%	7.1%	14.3%	35.7%	7.1%	14.3%	100.0%
		% of Total	14.3%	7.1%	7.1%	14.3%	35.7%	7.1%	14.3%	100.0%

Role * Quality of the project proposal - before Crosstabulation

			Quality of the project proposal - before									
			Least important	2	3	4	5	6	7	9	Most important	Total
Role	site staff	Count	0	1	1	0	0	1	0	0	0	3
		% within Role	.0%	33.3%	33.3%	.0%	.0%	33.3%	.0%	.0%	.0%	100.0%
		% of Total	.0%	7.1%	7.1%	.0%	.0%	7.1%	.0%	.0%	.0%	21.4%
	head office staff	Count	1	1	0	0	1	1	0	2	1	7
		% within Role	14.3%	14.3%	.0%	.0%	14.3%	14.3%	.0%	28.6%	14.3%	100.0%
		% of Total	7.1%	7.1%	.0%	.0%	7.1%	7.1%	.0%	14.3%	7.1%	50.0%
	senior management	Count	0	0	1	1	0	0	0	0	0	2
		% within Role	.0%	.0%	50.0%	50.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.1%	7.1%	.0%	.0%	.0%	.0%	.0%	14.3%
	other	Count	0	0	0	0	0	0	1	1	0	2
		% within Role	.0%	.0%	.0%	.0%	.0%	.0%	50.0%	50.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	7.1%	7.1%	.0%	14.3%
Total		Count	1	2	2	1	1	2	1	3	1	14
		% within Role	7.1%	14.3%	14.3%	7.1%	7.1%	14.3%	7.1%	21.4%	7.1%	100.0%
		% of Total	7.1%	14.3%	14.3%	7.1%	7.1%	14.3%	7.1%	21.4%	7.1%	100.0%

Role * Quality of the project proposal - after Crosstabulation

			Quality of the project proposal - after									
			Least important	2	3	4	5	6	7	8	Most important	Total
Role	site staff	Count	0	0	1	0	0	0	1	1	0	3
		% within Role	.0%	.0%	33.3%	.0%	.0%	.0%	33.3%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	.0%	7.7%	7.7%	.0%	23.1%
	head office staff	Count	0	1	1	1	1	0	0	1	1	6
		% within Role	.0%	16.7%	16.7%	16.7%	16.7%	.0%	.0%	16.7%	16.7%	100.0%
		% of Total	.0%	7.7%	7.7%	7.7%	7.7%	.0%	.0%	7.7%	7.7%	46.2%
	senior management	Count	1	0	0	0	0	1	0	0	0	2
		% within Role	50.0%	.0%	.0%	.0%	.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	7.7%	.0%	.0%	.0%	.0%	7.7%	.0%	.0%	.0%	15.4%
	other	Count	0	0	0	0	1	0	0	1	0	2
		% within Role	.0%	.0%	.0%	.0%	50.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.7%	.0%	.0%	7.7%	.0%	15.4%
Total		Count	1	1	2	1	2	1	1	3	1	13
		% within Role	7.7%	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	23.1%	7.7%	100.0%
		% of Total	7.7%	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	23.1%	7.7%	100.0%

Role * Project resources required - before Crosstabulation

			Project resources required - before							
			2	4	5	6	7	8	9	Total
Role	site staff	Count	0	2	0	1	0	0	0	3
		% within Role	.0%	66.7%	.0%	33.3%	.0%	.0%	.0%	100.0%
		% of Total	.0%	14.3%	.0%	7.1%	.0%	.0%	.0%	21.4%
	head office staff	Count	1	2	0	1	1	1	1	7
		% within Role	14.3%	28.6%	.0%	14.3%	14.3%	14.3%	14.3%	100.0%
		% of Total	7.1%	14.3%	.0%	7.1%	7.1%	7.1%	7.1%	50.0%
	senior management	Count	1	0	1	0	0	0	0	2
		% within Role	50.0%	.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	7.1%	.0%	7.1%	.0%	.0%	.0%	.0%	14.3%
	other	Count	0	1	0	1	0	0	0	2
		% within Role	.0%	50.0%	.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	7.1%	.0%	7.1%	.0%	.0%	.0%	14.3%
Total		Count	2	5	1	3	1	1	1	14
		% within Role	14.3%	35.7%	7.1%	21.4%	7.1%	7.1%	7.1%	100.0%
		% of Total	14.3%	35.7%	7.1%	21.4%	7.1%	7.1%	7.1%	100.0%

Role * Project resources required - after Crosstabulation

			Project resources required - after									
			Least important	2	3	4	5	6	7	8	9	Total
Role	site staff	Count	0	0	0	0	0	0	0	2	1	3
		% within Role	.0%	.0%	.0%	.0%	.0%	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	.0%	15.4%	7.7%	23.1%
	head office staff	Count	1	1	1	0	1	1	0	1	0	6
		% within Role	16.7%	16.7%	16.7%	.0%	16.7%	16.7%	.0%	16.7%	.0%	100.0%
		% of Total	7.7%	7.7%	7.7%	.0%	7.7%	7.7%	.0%	7.7%	.0%	46.2%
	senior management	Count	0	1	0	1	0	0	0	0	0	2
		% within Role	.0%	50.0%	.0%	50.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	7.7%	.0%	7.7%	.0%	.0%	.0%	.0%	.0%	15.4%
	other	Count	0	0	0	1	0	0	1	0	0	2
		% within Role	.0%	.0%	.0%	50.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.7%	.0%	.0%	7.7%	.0%	.0%	15.4%
Total		Count	1	2	1	2	1	1	1	3	1	13
		% within Role	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	7.7%	23.1%	7.7%	100.0%
		% of Total	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	7.7%	23.1%	7.7%	100.0%

Role * Before we began, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			Before we began, I knew how to define a strategic gap and plan a project to fix it								
			Strongly disagree	2	3	4	5	6	7	Strongly agree	Total
Role	site staff	Count	2	2	0	0	1	0	0	1	6
		% within Role	33.3%	33.3%	.0%	.0%	16.7%	.0%	.0%	16.7%	100.0%
		% of Total	11.1%	11.1%	.0%	.0%	5.6%	.0%	.0%	5.6%	33.3%
	head office staff	Count	0	1	1	1	1	0	3	0	7
		% within Role	.0%	14.3%	14.3%	14.3%	14.3%	.0%	42.9%	.0%	100.0%
		% of Total	.0%	5.6%	5.6%	5.6%	5.6%	.0%	16.7%	.0%	38.9%
	senior management	Count	0	0	0	0	0	0	2	1	3
		% within Role	.0%	.0%	.0%	.0%	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	11.1%	5.6%	16.7%
	other	Count	0	0	0	0	0	2	0	0	2
		% within Role	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	11.1%	.0%	.0%	11.1%
Total		Count	2	3	1	1	2	2	5	2	18
		% within Role	11.1%	16.7%	5.6%	5.6%	11.1%	11.1%	27.8%	11.1%	100.0%
		% of Total	11.1%	16.7%	5.6%	5.6%	11.1%	11.1%	27.8%	11.1%	100.0%

Role * After we finish, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			After we finish, I knew how to define a strategic gap and plan a project to fix it							
			4	5	6	7	8	9	Strongly agree	Total
Role	site staff	Count	0	1	1	1	3	0	0	6
		% within Role	.0%	16.7%	16.7%	16.7%	50.0%	.0%	.0%	100.0%
		% of Total	.0%	5.6%	5.6%	5.6%	16.7%	.0%	.0%	33.3%
	head office staff	Count	1	0	0	2	3	1	0	7
		% within Role	14.3%	.0%	.0%	28.6%	42.9%	14.3%	.0%	100.0%
		% of Total	5.6%	.0%	.0%	11.1%	16.7%	5.6%	.0%	38.9%
	senior management	Count	0	0	0	0	0	2	1	3
		% within Role	.0%	.0%	.0%	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	11.1%	5.6%	16.7%
	other	Count	0	0	0	0	0	2	0	2
		% within Role	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	11.1%	.0%	11.1%
Total		Count	1	1	1	3	6	5	1	18
		% within Role	5.6%	5.6%	5.6%	16.7%	33.3%	27.8%	5.6%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	33.3%	27.8%	5.6%	100.0%

Role * Learning this process will help me be more strategic in my role within PLASP Crosstabulation

			Learning this process will help me be more strategic in my role within PLASP			
			8	9	Strongly agree	Total
Role	site staff	Count	2	4	0	6
		% within Role	33.3%	66.7%	.0%	100.0%
		% of Total	11.1%	22.2%	.0%	33.3%
	head office staff	Count	4	0	3	7
		% within Role	57.1%	.0%	42.9%	100.0%
		% of Total	22.2%	.0%	16.7%	38.9%
	senior management	Count	0	1	2	3
		% within Role	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	5.6%	11.1%	16.7%
	other	Count	0	2	0	2
		% within Role	.0%	100.0%	.0%	100.0%
		% of Total	.0%	11.1%	.0%	11.1%
Total		Count	6	7	5	18
		% within Role	33.3%	38.9%	27.8%	100.0%
		% of Total	33.3%	38.9%	27.8%	100.0%

Role * Initial training workshop on the methodology Crosstabulation

			Initial training workshop on the methodology						
			3	5	7	8	9	Most impact	Total
Role	site staff	Count	0	1	0	2	3	0	6
		% within Role	.0%	16.7%	.0%	33.3%	50.0%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	11.1%	16.7%	.0%	33.3%
	head office staff	Count	0	0	2	2	2	1	7
		% within Role	.0%	.0%	28.6%	28.6%	28.6%	14.3%	100.0%
		% of Total	.0%	.0%	11.1%	11.1%	11.1%	5.6%	38.9%
	senior management	Count	0	0	1	0	2	0	3
		% within Role	.0%	.0%	33.3%	.0%	66.7%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	11.1%	.0%	16.7%
	other	Count	1	0	0	0	0	1	2
		% within Role	50.0%	.0%	.0%	.0%	.0%	50.0%	100.0%
		% of Total	5.6%	.0%	.0%	.0%	.0%	5.6%	11.1%
Total		Count	1	1	3	4	7	2	18
		% within Role	5.6%	5.6%	16.7%	22.2%	38.9%	11.1%	100.0%
		% of Total	5.6%	5.6%	16.7%	22.2%	38.9%	11.1%	100.0%

Role * Clear executive support to implement this Crosstabulation

			Clear executive support to implement this					
			5	7	8	9	Most impact	Total
Role	site staff	Count	0	2	1	3	0	6
		% within Role	.0%	33.3%	16.7%	50.0%	.0%	100.0%
		% of Total	.0%	11.1%	5.6%	16.7%	.0%	33.3%
	head office staff	Count	1	0	0	4	2	7
		% within Role	14.3%	.0%	.0%	57.1%	28.6%	100.0%
		% of Total	5.6%	.0%	.0%	22.2%	11.1%	38.9%
	senior management	Count	0	0	0	1	2	3
		% within Role	.0%	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	0	0	0	0	2	2
		% within Role	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.1%	11.1%
Total		Count	1	2	1	8	6	18
		% within Role	5.6%	11.1%	5.6%	44.4%	33.3%	100.0%
		% of Total	5.6%	11.1%	5.6%	44.4%	33.3%	100.0%

Role * Involvment of staff on the project team Crosstabulation

			Involvment of staff on the project team				
			4	8	9	Most impact	Total
Role	site staff	Count	0	1	2	3	6
		% within Role	.0%	16.7%	33.3%	50.0%	100.0%
		% of Total	.0%	5.6%	11.1%	16.7%	33.3%
	head office staff	Count	1	1	2	3	7
		% within Role	14.3%	14.3%	28.6%	42.9%	100.0%
		% of Total	5.6%	5.6%	11.1%	16.7%	38.9%
	senior management	Count	0	0	1	2	3
		% within Role	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	0	0	1	1	2
		% within Role	.0%	.0%	50.0%	50.0%	100.0%
		% of Total	.0%	.0%	5.6%	5.6%	11.1%
Total		Count	1	2	6	9	18
		% within Role	5.6%	11.1%	33.3%	50.0%	100.0%
		% of Total	5.6%	11.1%	33.3%	50.0%	100.0%

Role * The ability to state & measure strategy clearly Crosstabulation

			The ability to state & measure strategy clearly				
			7	8	9	Most impact	Total
Role	site staff	Count	1	1	2	2	6
		% within Role	16.7%	16.7%	33.3%	33.3%	100.0%
		% of Total	5.6%	5.6%	11.1%	11.1%	33.3%
	head office staff	Count	2	2	1	2	7
		% within Role	28.6%	28.6%	14.3%	28.6%	100.0%
		% of Total	11.1%	11.1%	5.6%	11.1%	38.9%
	senior management	Count	0	0	0	3	3
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	16.7%	16.7%
	other	Count	0	0	2	0	2
		% within Role	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	11.1%	.0%	11.1%
Total		Count	3	3	5	7	18
		% within Role	16.7%	16.7%	27.8%	38.9%	100.0%
		% of Total	16.7%	16.7%	27.8%	38.9%	100.0%

Role * The fact the method is used in the private sector Crosstabulation

			The fact the method is used in the private sector								
			Least impact	2	3	5	6	7	8	9	Total
Role	site staff	Count	0	0	3	1	1	0	1	0	6
		% within Role	.0%	.0%	50.0%	16.7%	16.7%	.0%	16.7%	.0%	100.0%
		% of Total	.0%	.0%	16.7%	5.6%	5.6%	.0%	5.6%	.0%	33.3%
	head office staff	Count	1	1	1	0	2	1	0	1	7
		% within Role	14.3%	14.3%	14.3%	.0%	28.6%	14.3%	.0%	14.3%	100.0%
		% of Total	5.6%	5.6%	5.6%	.0%	11.1%	5.6%	.0%	5.6%	38.9%
	senior management	Count	0	0	1	0	1	0	1	0	3
		% within Role	.0%	.0%	33.3%	.0%	33.3%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	5.6%	.0%	5.6%	.0%	16.7%
	other	Count	0	1	0	1	0	0	0	0	2
		% within Role	.0%	50.0%	.0%	50.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	5.6%	.0%	.0%	.0%	.0%	11.1%
Total		Count	1	2	5	2	4	1	2	1	18
		% within Role	5.6%	11.1%	27.8%	11.1%	22.2%	5.6%	11.1%	5.6%	100.0%
		% of Total	5.6%	11.1%	27.8%	11.1%	22.2%	5.6%	11.1%	5.6%	100.0%

Role * Reading about others' successes & failures Crosstabulation

			Reading about others' successes & failures							
			3	4	5	6	7	8	Most impact	Total
Role	site staff	Count	1	1	1	0	1	2	0	6
		% within Role	16.7%	16.7%	16.7%	.0%	16.7%	33.3%	.0%	100.0%
		% of Total	5.6%	5.6%	5.6%	.0%	5.6%	11.1%	.0%	33.3%
	head office staff	Count	0	1	1	1	3	0	1	7
		% within Role	.0%	14.3%	14.3%	14.3%	42.9%	.0%	14.3%	100.0%
		% of Total	.0%	5.6%	5.6%	5.6%	16.7%	.0%	5.6%	38.9%
	senior management	Count	0	0	1	1	0	1	0	3
		% within Role	.0%	.0%	33.3%	33.3%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	5.6%	.0%	5.6%	.0%	16.7%
	other	Count	0	1	0	1	0	0	0	2
		% within Role	.0%	50.0%	.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	5.6%	.0%	.0%	.0%	11.1%
Total		Count	1	3	3	3	4	3	1	18
		% within Role	5.6%	16.7%	16.7%	16.7%	22.2%	16.7%	5.6%	100.0%
		% of Total	5.6%	16.7%	16.7%	16.7%	22.2%	16.7%	5.6%	100.0%

Role * Using outside facilitators to manage meetings Crosstabulation

			Using outside facilitators to manage meetings					
			6	7	8	9	Most impact	Total
Role	site staff	Count	1	0	1	2	2	6
		% within Role	16.7%	.0%	16.7%	33.3%	33.3%	100.0%
		% of Total	5.6%	.0%	5.6%	11.1%	11.1%	33.3%
	head office staff	Count	0	1	1	0	5	7
		% within Role	.0%	14.3%	14.3%	.0%	71.4%	100.0%
		% of Total	.0%	5.6%	5.6%	.0%	27.8%	38.9%
	senior management	Count	0	0	0	1	2	3
		% within Role	.0%	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	0	0	0	0	2	2
		% within Role	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.1%	11.1%
Total		Count	1	1	2	3	11	18
		% within Role	5.6%	5.6%	11.1%	16.7%	61.1%	100.0%
		% of Total	5.6%	5.6%	11.1%	16.7%	61.1%	100.0%

Role * Having consultants available to support us Crosstabulation

			Having consultants available to support us				
			7	8	9	Most impact	Total
Role	site staff	Count	0	2	2	2	6
		% within Role	.0%	33.3%	33.3%	33.3%	100.0%
		% of Total	.0%	11.1%	11.1%	11.1%	33.3%
	head office staff	Count	1	0	2	4	7
		% within Role	14.3%	.0%	28.6%	57.1%	100.0%
		% of Total	5.6%	.0%	11.1%	22.2%	38.9%
	senior management	Count	0	0	1	2	3
		% within Role	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	0	0	0	2	2
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	11.1%	11.1%
Total		Count	1	2	5	10	18
		% within Role	5.6%	11.1%	27.8%	55.6%	100.0%
		% of Total	5.6%	11.1%	27.8%	55.6%	100.0%

Role * My time commitment required to learn methodology Crosstabulation

			My time commitment required to learn methodology						
			3	5	7	8	9	Most impact	Total
Role	site staff	Count	1	0	1	2	2	0	6
		% within Role	16.7%	.0%	16.7%	33.3%	33.3%	.0%	100.0%
		% of Total	5.6%	.0%	5.6%	11.1%	11.1%	.0%	33.3%
	head office staff	Count	0	1	0	1	3	2	7
		% within Role	.0%	14.3%	.0%	14.3%	42.9%	28.6%	100.0%
		% of Total	.0%	5.6%	.0%	5.6%	16.7%	11.1%	38.9%
	senior management	Count	0	0	0	0	2	1	3
		% within Role	.0%	.0%	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.1%	5.6%	16.7%
	other	Count	0	0	0	0	2	0	2
		% within Role	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.1%	.0%	11.1%
Total		Count	1	1	1	3	9	3	18
		% within Role	5.6%	5.6%	5.6%	16.7%	50.0%	16.7%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	50.0%	16.7%	100.0%

Role * The time required before results are achieved Crosstabulation

			The time required before results are achieved						
			5	6	7	8	9	Most impact	Total
Role	site staff	Count	0	1	2	2	0	1	6
		% within Role	.0%	16.7%	33.3%	33.3%	.0%	16.7%	100.0%
		% of Total	.0%	5.6%	11.1%	11.1%	.0%	5.6%	33.3%
	head office staff	Count	1	1	0	3	2	0	7
		% within Role	14.3%	14.3%	.0%	42.9%	28.6%	.0%	100.0%
		% of Total	5.6%	5.6%	.0%	16.7%	11.1%	.0%	38.9%
	senior management	Count	0	0	0	0	2	1	3
		% within Role	.0%	.0%	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.1%	5.6%	16.7%
	other	Count	0	0	0	0	2	0	2
		% within Role	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.1%	.0%	11.1%
Total		Count	1	2	2	5	6	2	18
		% within Role	5.6%	11.1%	11.1%	27.8%	33.3%	11.1%	100.0%
		% of Total	5.6%	11.1%	11.1%	27.8%	33.3%	11.1%	100.0%

Role * I think the process is sound Crosstabulation

			I think the process is sound				
			7	8	9	Strongly agree	Total
Role	site staff	Count	1	1	2	2	6
		% within Role	16.7%	16.7%	33.3%	33.3%	100.0%
		% of Total	5.6%	5.6%	11.1%	11.1%	33.3%
	head office staff	Count	0	2	2	3	7
		% within Role	.0%	28.6%	28.6%	42.9%	100.0%
		% of Total	.0%	11.1%	11.1%	16.7%	38.9%
	senior management	Count	0	0	1	2	3
		% within Role	.0%	.0%	33.3%	66.7%	100.0%
		% of Total	.0%	.0%	5.6%	11.1%	16.7%
	other	Count	0	0	0	2	2
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	11.1%	11.1%
Total		Count	1	3	5	9	18
		% within Role	5.6%	16.7%	27.8%	50.0%	100.0%
		% of Total	5.6%	16.7%	27.8%	50.0%	100.0%

Role * I think the process is relevant to us Crosstabulation

			I think the process is relevant to us			
			8	9	Strongly agree	Total
Role	site staff	Count	1	3	2	6
		% within Role	16.7%	50.0%	33.3%	100.0%
		% of Total	5.6%	16.7%	11.1%	33.3%
	head office staff	Count	1	2	4	7
		% within Role	14.3%	28.6%	57.1%	100.0%
		% of Total	5.6%	11.1%	22.2%	38.9%
	senior management	Count	0	0	3	3
		% within Role	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	16.7%	16.7%
	other	Count	0	1	1	2
		% within Role	.0%	50.0%	50.0%	100.0%
		% of Total	.0%	5.6%	5.6%	11.1%
Total		Count	2	6	10	18
		% within Role	11.1%	33.3%	55.6%	100.0%
		% of Total	11.1%	33.3%	55.6%	100.0%

Role * I think the process will generate results for us Crosstabulation

			I think the process will generate results for us				
			7	8	9	Strongly agree	Total
Role	site staff	Count	1	1	0	4	6
		% within Role	16.7%	16.7%	.0%	66.7%	100.0%
		% of Total	5.6%	5.6%	.0%	22.2%	33.3%
	head office staff	Count	0	0	2	5	7
		% within Role	.0%	.0%	28.6%	71.4%	100.0%
		% of Total	.0%	.0%	11.1%	27.8%	38.9%
	senior management	Count	0	0	0	3	3
		% within Role	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	16.7%	16.7%
	other	Count	1	0	1	0	2
		% within Role	50.0%	.0%	50.0%	.0%	100.0%
		% of Total	5.6%	.0%	5.6%	.0%	11.1%
Total		Count	2	1	3	12	18
		% within Role	11.1%	5.6%	16.7%	66.7%	100.0%
		% of Total	11.1%	5.6%	16.7%	66.7%	100.0%

Role * I think the process will be accepted by others Crosstabulation

			I think the process will be accepted by others						
			5	6	7	8	9	Strongly agree	Total
Role	site staff	Count	0	3	1	0	1	1	6
		% within Role	.0%	50.0%	16.7%	.0%	16.7%	16.7%	100.0%
		% of Total	.0%	16.7%	5.6%	.0%	5.6%	5.6%	33.3%
	head office staff	Count	0	2	2	0	1	2	7
		% within Role	.0%	28.6%	28.6%	.0%	14.3%	28.6%	100.0%
		% of Total	.0%	11.1%	11.1%	.0%	5.6%	11.1%	38.9%
	senior management	Count	1	0	0	2	0	0	3
		% within Role	33.3%	.0%	.0%	66.7%	.0%	.0%	100.0%
		% of Total	5.6%	.0%	.0%	11.1%	.0%	.0%	16.7%
	other	Count	0	1	1	0	0	0	2
		% within Role	.0%	50.0%	50.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	5.6%	5.6%	.0%	.0%	.0%	11.1%
Total		Count	1	6	4	2	2	3	18
		% within Role	5.6%	33.3%	22.2%	11.1%	11.1%	16.7%	100.0%
		% of Total	5.6%	33.3%	22.2%	11.1%	11.1%	16.7%	100.0%

Role * Have you previously worked with the Balanced Scorecard? Crosstabulation

			Have you previously worked with the Balanced Scorecard?	
			no	Total
Role	site staff	Count	6	6
		% within Role	100.0%	100.0%
		% of Total	40.0%	40.0%
	head office staff	Count	5	5
		% within Role	100.0%	100.0%
		% of Total	33.3%	33.3%
	senior management	Count	3	3
		% within Role	100.0%	100.0%
		% of Total	20.0%	20.0%
	other	Count	1	1
		% within Role	100.0%	100.0%
		% of Total	6.7%	6.7%
Total		Count	15	15
		% within Role	100.0%	100.0%
		% of Total	100.0%	100.0%

Gender * Before participating on this team, my understanding of PLASP's strategy was clear Crosstabulation

			Before participating on this team, my understanding of PLASP's strategy was clear							
			3	5	6	7	8	9	Strongly agree	Total
Gender	female	Count	2	3	1	2	4	3	2	17
		% within Gender	11.8%	17.6%	5.9%	11.8%	23.5%	17.6%	11.8%	100.0%
		% of Total	11.1%	16.7%	5.6%	11.1%	22.2%	16.7%	11.1%	94.4%
	male	Count	0	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	.0%	5.6%
Total		Count	2	3	1	2	5	3	2	18
		% within Gender	11.1%	16.7%	5.6%	11.1%	27.8%	16.7%	11.1%	100.0%
		% of Total	11.1%	16.7%	5.6%	11.1%	27.8%	16.7%	11.1%	100.0%

Gender * After participating on this team, my understanding of PLASP's strategy is clearer Crosstabulation

			After participating on this team, my understanding of PLASP's strategy is clearer			
			8	9	Strongly agree	Total
Gender	female	Count	3	7	7	17
		% within Gender	17.6%	41.2%	41.2%	100.0%
		% of Total	16.7%	38.9%	38.9%	94.4%
	male	Count	0	0	1	1
		% within Gender	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	5.6%	5.6%
Total		Count	3	7	8	18
		% within Gender	16.7%	38.9%	44.4%	100.0%
		% of Total	16.7%	38.9%	44.4%	100.0%

Gender * The team's output will comunicate our strategy across the organization clearly Crosstabulation

			The team's output will comunicate our strategy across the organization clearly						
			5	6	7	8	9	Strongly agree	Total
Gender	female	Count	1	1	1	3	6	5	17
		% within Gender	5.9%	5.9%	5.9%	17.6%	35.3%	29.4%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	33.3%	27.8%	94.4%
	male	Count	0	0	0	0	1	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	1	1	3	7	5	18
		% within Gender	5.6%	5.6%	5.6%	16.7%	38.9%	27.8%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	38.9%	27.8%	100.0%

Gender * There was a personal benefit to me from participating on this team Crosstabulation

			There was a personal benefit to me from participating on this team				
			7	8	9	Strongly agree	Total
Gender	female	Count	1	1	7	8	17
		% within Gender	5.9%	5.9%	41.2%	47.1%	100.0%
		% of Total	5.6%	5.6%	38.9%	44.4%	94.4%
	male	Count	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	5.6%
Total		Count	1	1	7	9	18
		% within Gender	5.6%	5.6%	38.9%	50.0%	100.0%
		% of Total	5.6%	5.6%	38.9%	50.0%	100.0%

Gender * There was an organizational benefit to me from participating on this team Crosstabulation

			There was an organizational benefit to me from participating on this team		
			9	Strongly agree	Total
Gender	female	Count	5	12	17
		% within Gender	29.4%	70.6%	100.0%
		% of Total	27.8%	66.7%	94.4%
	male	Count	0	1	1
		% within Gender	.0%	100.0%	100.0%
		% of Total	.0%	5.6%	5.6%
Total		Count	5	13	18
		% within Gender	27.8%	72.2%	100.0%
		% of Total	27.8%	72.2%	100.0%

Gender * I would recommend this process to another organization as having high value Crosstabulation

			I would recommend this process to another organization as having high value				
			7	8	9	Strongly agree	Total
Gender	female	Count	1	2	5	9	17
		% within Gender	5.9%	11.8%	29.4%	52.9%	100.0%
		% of Total	5.6%	11.1%	27.8%	50.0%	94.4%
	male	Count	0	0	1	0	1
		% within Gender	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	2	6	9	18
		% within Gender	5.6%	11.1%	33.3%	50.0%	100.0%
		% of Total	5.6%	11.1%	33.3%	50.0%	100.0%

Gender * Before we began, I thought PLASP's internal processes were efficient Crosstabulation

			Before we began, I thought PLASP's internal processes were efficient						
			3	4	5	6	7	8	Total
Gender	female	Count	1	2	5	2	5	2	17
		% within Gender	5.9%	11.8%	29.4%	11.8%	29.4%	11.8%	100.0%
		% of Total	5.6%	11.1%	27.8%	11.1%	27.8%	11.1%	94.4%
	male	Count	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	.0%	.0%	5.6%
Total		Count	1	2	5	3	5	2	18
		% within Gender	5.6%	11.1%	27.8%	16.7%	27.8%	11.1%	100.0%
		% of Total	5.6%	11.1%	27.8%	16.7%	27.8%	11.1%	100.0%

Gender * After we finish, I think PLASP's internal processes will be more efficient Crosstabulation

			After we finish, I think PLASP's internal processes will be more efficient						
			4	5	6	8	9	Strongly agree	Total
Gender	female	Count	1	1	1	2	10	2	17
		% within Gender	5.9%	5.9%	5.9%	11.8%	58.8%	11.8%	100.0%
		% of Total	5.6%	5.6%	5.6%	11.1%	55.6%	11.1%	94.4%
	male	Count	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	.0%	.0%	5.6%
Total		Count	1	1	1	3	10	2	18
		% within Gender	5.6%	5.6%	5.6%	16.7%	55.6%	11.1%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	55.6%	11.1%	100.0%

Gender * Before we began, I thought PLASP's internal processes were effective Crosstabulation

			Before we began, I thought PLASP's internal processes were effective						
			4	5	6	7	8	9	Total
Gender	female	Count	2	4	2	6	1	2	17
		% within Gender	11.8%	23.5%	11.8%	35.3%	5.9%	11.8%	100.0%
		% of Total	11.1%	22.2%	11.1%	33.3%	5.6%	11.1%	94.4%
	male	Count	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	.0%	.0%	5.6%
Total		Count	2	4	2	7	1	2	18
		% within Gender	11.1%	22.2%	11.1%	38.9%	5.6%	11.1%	100.0%
		% of Total	11.1%	22.2%	11.1%	38.9%	5.6%	11.1%	100.0%

Gender * After we finish, I think PLASP's internal processes will be more effective Crosstabulation

			After we finish, I think PLASP's internal processes will be more effective				
			7	8	9	Strongly agree	Total
Gender	female	Count	2	3	9	3	17
		% within Gender	11.8%	17.6%	52.9%	17.6%	100.0%
		% of Total	11.1%	16.7%	50.0%	16.7%	94.4%
	male	Count	0	0	1	0	1
		% within Gender	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	5.6%
Total		Count	2	3	10	3	18
		% within Gender	11.1%	16.7%	55.6%	16.7%	100.0%
		% of Total	11.1%	16.7%	55.6%	16.7%	100.0%

Gender * This effort had a beneficial effect on my understanding of business process generally Crosstabulation

			This effort had a beneficial effect on my understanding of business process generally				
			7	8	9	Strongly agree	Total
Gender	female	Count	2	9	2	4	17
		% within Gender	11.8%	52.9%	11.8%	23.5%	100.0%
		% of Total	11.1%	50.0%	11.1%	22.2%	94.4%
	male	Count	1	0	0	0	1
		% within Gender	100.0%	.0%	.0%	.0%	100.0%
		% of Total	5.6%	.0%	.0%	.0%	5.6%
Total		Count	3	9	2	4	18
		% within Gender	16.7%	50.0%	11.1%	22.2%	100.0%
		% of Total	16.7%	50.0%	11.1%	22.2%	100.0%

Gender * The return from BSC exceeds the effort spent Crosstabulation

			The return from BSC exceeds the effort spent				
			7	8	9	Strongly agree	Total
Gender	female	Count	1	8	3	5	17
		% within Gender	5.9%	47.1%	17.6%	29.4%	100.0%
		% of Total	5.6%	44.4%	16.7%	27.8%	94.4%
	male	Count	0	0	1	0	1
		% within Gender	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	8	4	5	18
		% within Gender	5.6%	44.4%	22.2%	27.8%	100.0%
		% of Total	5.6%	44.4%	22.2%	27.8%	100.0%

Gender * Before we began, PLASP had too many projects underway at the same time Crosstabulation

			Before we began, PLASP had too many projects underway at the same time								
			2	3	5	6	7	8	9	Strongly agree	Total
Gender	female	Count	1	1	4	1	1	3	3	3	17
		% within Gender	5.9%	5.9%	23.5%	5.9%	5.9%	17.6%	17.6%	17.6%	100.0%
		% of Total	5.6%	5.6%	22.2%	5.6%	5.6%	16.7%	16.7%	16.7%	94.4%
	male	Count	0	0	0	0	0	0	1	0	1
		% within Gender	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	1	4	1	1	3	4	3	18
		% within Gender	5.6%	5.6%	22.2%	5.6%	5.6%	16.7%	22.2%	16.7%	100.0%
		% of Total	5.6%	5.6%	22.2%	5.6%	5.6%	16.7%	22.2%	16.7%	100.0%

Gender * After we finish, PLASP will have too many projects underway at the same time Crosstabulation

			After we finish, PLASP will have too many projects underway at the same time										
			Strongly disagree	2	3	4	5	6	7	8	9	Strongly agree	Total
Gender	female	Count	1	2	3	1	2	2	1	3	1	1	17
		% within Gender	5.9%	11.8%	17.6%	5.9%	11.8%	11.8%	5.9%	17.6%	5.9%	5.9%	100.0%
		% of Total	5.6%	11.1%	16.7%	5.6%	11.1%	11.1%	5.6%	16.7%	5.6%	5.6%	94.4%
	male	Count	0	0	1	0	0	0	0	0	0	0	1
		% within Gender	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	5.6%
Total		Count	1	2	4	1	2	2	1	3	1	1	18
		% within Gender	5.6%	11.1%	22.2%	5.6%	11.1%	11.1%	5.6%	16.7%	5.6%	5.6%	100.0%
		% of Total	5.6%	11.1%	22.2%	5.6%	11.1%	11.1%	5.6%	16.7%	5.6%	5.6%	100.0%

Gender * Before we began, I had difficulty determining which projects were more strategic Crosstabulation

			Before we began, I had difficulty determining which projects were more strategic								
			Strongly disagree	4	5	6	7	8	9	Strongly agree	Total
Gender	female	Count	1	3	2	3	1	3	3	1	17
		% within Gender	5.9%	17.6%	11.8%	17.6%	5.9%	17.6%	17.6%	5.9%	100.0%
		% of Total	5.6%	16.7%	11.1%	16.7%	5.6%	16.7%	16.7%	5.6%	94.4%
	male	Count	0	0	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	5.6%	.0%	.0%	5.6%
Total		Count	1	3	2	3	1	4	3	1	18
		% within Gender	5.6%	16.7%	11.1%	16.7%	5.6%	22.2%	16.7%	5.6%	100.0%
		% of Total	5.6%	16.7%	11.1%	16.7%	5.6%	22.2%	16.7%	5.6%	100.0%

Gender * After we finish, I will have difficulty determining which projects are more strategic Crosstabulation

			After we finish, I will have difficulty determining which projects are more strategic								
			Strongly disagree	2	3	4	5	6	7	9	Total
Gender	female	Count	5	4	1	2	1	1	2	1	17
		% within Gender	29.4%	23.5%	5.9%	11.8%	5.9%	5.9%	11.8%	5.9%	100.0%
		% of Total	27.8%	22.2%	5.6%	11.1%	5.6%	5.6%	11.1%	5.6%	94.4%
	male	Count	1	0	0	0	0	0	0	0	1
		% within Gender	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	5.6%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	5.6%
Total		Count	6	4	1	2	1	1	2	1	18
		% within Gender	33.3%	22.2%	5.6%	11.1%	5.6%	5.6%	11.1%	5.6%	100.0%
		% of Total	33.3%	22.2%	5.6%	11.1%	5.6%	5.6%	11.1%	5.6%	100.0%

Gender * Who the project sponsor is - before Crosstabulation

			Who the project sponsor is - before									
			Least important	2	3	5	6	7	8	9	Most important	Total
Gender	female	Count	2	1	1	3	0	1	1	2	2	13
		% within Gender	15.4%	7.7%	7.7%	23.1%	.0%	7.7%	7.7%	15.4%	15.4%	100.0%
		% of Total	14.3%	7.1%	7.1%	21.4%	.0%	7.1%	7.1%	14.3%	14.3%	92.9%
	male	Count	0	0	0	0	1	0	0	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.1%	.0%	.0%	.0%	.0%	7.1%
Total		Count	2	1	1	3	1	1	1	2	2	14
		% within Gender	14.3%	7.1%	7.1%	21.4%	7.1%	7.1%	7.1%	14.3%	14.3%	100.0%
		% of Total	14.3%	7.1%	7.1%	21.4%	7.1%	7.1%	7.1%	14.3%	14.3%	100.0%

Gender * Who the project sponsor is - after Crosstabulation

			Who the project sponsor is - after						
			Least important	2	3	5	9	Most important	Total
Gender	female	Count	4	1	1	1	2	3	12
		% within Gender	33.3%	8.3%	8.3%	8.3%	16.7%	25.0%	100.0%
		% of Total	30.8%	7.7%	7.7%	7.7%	15.4%	23.1%	92.3%
	male	Count	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	.0%	7.7%
Total		Count	4	1	2	1	2	3	13
		% within Gender	30.8%	7.7%	15.4%	7.7%	15.4%	23.1%	100.0%
		% of Total	30.8%	7.7%	15.4%	7.7%	15.4%	23.1%	100.0%

Gender * What the financial benefits are - before Crosstabulation

			What the financial benefits are - before								
			Least important	3	4	5	6	7	8	Most important	Total
Gender	female	Count	2	1	1	1	4	3	1	0	13
		% within Gender	15.4%	7.7%	7.7%	7.7%	30.8%	23.1%	7.7%	.0%	100.0%
		% of Total	14.3%	7.1%	7.1%	7.1%	28.6%	21.4%	7.1%	.0%	92.9%
	male	Count	0	0	0	0	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	.0%	7.1%	7.1%
Total		Count	2	1	1	1	4	3	1	1	14
		% within Gender	14.3%	7.1%	7.1%	7.1%	28.6%	21.4%	7.1%	7.1%	100.0%
		% of Total	14.3%	7.1%	7.1%	7.1%	28.6%	21.4%	7.1%	7.1%	100.0%

Gender * What the financial benefits are - after Crosstabulation

			What the financial benefits are - after									
			Least important	3	4	5	6	7	8	9	Most important	Total
Gender	female	Count	1	1	2	3	1	1	1	1	1	12
		% within Gender	8.3%	8.3%	16.7%	25.0%	8.3%	8.3%	8.3%	8.3%	8.3%	100.0%
		% of Total	7.7%	7.7%	15.4%	23.1%	7.7%	7.7%	7.7%	7.7%	7.7%	92.3%
	male	Count	0	0	0	0	1	0	0	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.7%	.0%	.0%	.0%	.0%	7.7%
Total		Count	1	1	2	3	2	1	1	1	1	13
		% within Gender	7.7%	7.7%	15.4%	23.1%	15.4%	7.7%	7.7%	7.7%	7.7%	100.0%
		% of Total	7.7%	7.7%	15.4%	23.1%	15.4%	7.7%	7.7%	7.7%	7.7%	100.0%

Gender * What the strategic fit is - before Crosstabulation

			What the strategic fit is - before						
			Least important	5	6	7	8	Most important	Total
Gender	female	Count	1	3	3	1	4	2	14
		% within Gender	7.1%	21.4%	21.4%	7.1%	28.6%	14.3%	100.0%
		% of Total	6.7%	20.0%	20.0%	6.7%	26.7%	13.3%	93.3%
	male	Count	0	0	0	0	1	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	6.7%	.0%	6.7%
Total		Count	1	3	3	1	5	2	15
		% within Gender	6.7%	20.0%	20.0%	6.7%	33.3%	13.3%	100.0%
		% of Total	6.7%	20.0%	20.0%	6.7%	33.3%	13.3%	100.0%

Gender * What the strategic fit is - after Crosstabulation

			What the strategic fit is - after					
			Least important	4	6	7	Most important	Total
Gender	female	Count	2	2	2	1	6	13
		% within Gender	15.4%	15.4%	15.4%	7.7%	46.2%	100.0%
		% of Total	14.3%	14.3%	14.3%	7.1%	42.9%	92.9%
	male	Count	0	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.1%	7.1%
Total		Count	2	2	2	1	7	14
		% within Gender	14.3%	14.3%	14.3%	7.1%	50.0%	100.0%
		% of Total	14.3%	14.3%	14.3%	7.1%	50.0%	100.0%

Gender * If we had done similar stuff before Crosstabulation

			If we had done similar stuff before								
			Least important	2	3	4	5	7	8	Most important	Total
Gender	female	Count	3	1	2	2	0	3	1	1	13
		% within Gender	23.1%	7.7%	15.4%	15.4%	.0%	23.1%	7.7%	7.7%	100.0%
		% of Total	21.4%	7.1%	14.3%	14.3%	.0%	21.4%	7.1%	7.1%	92.9%
	male	Count	0	0	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.1%	.0%	.0%	.0%	7.1%
Total		Count	3	1	2	2	1	3	1	1	14
		% within Gender	21.4%	7.1%	14.3%	14.3%	7.1%	21.4%	7.1%	7.1%	100.0%
		% of Total	21.4%	7.1%	14.3%	14.3%	7.1%	21.4%	7.1%	7.1%	100.0%

Gender * If we had done similar stuff after Crosstabulation

			If we had done similar stuff after						
			Least important	2	5	7	9	Most important	Total
Gender	female	Count	2	4	2	1	2	1	12
		% within Gender	16.7%	33.3%	16.7%	8.3%	16.7%	8.3%	100.0%
		% of Total	15.4%	30.8%	15.4%	7.7%	15.4%	7.7%	92.3%
	male	Count	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	.0%	7.7%
Total		Count	2	4	3	1	2	1	13
		% within Gender	15.4%	30.8%	23.1%	7.7%	15.4%	7.7%	100.0%
		% of Total	15.4%	30.8%	23.1%	7.7%	15.4%	7.7%	100.0%

Gender * Capital investment required - before Crosstabulation

			Capital investment required - before							
			Least important	2	3	5	6	8	9	Total
Gender	female	Count	1	2	4	3	1	2	0	13
		% within Gender	7.7%	15.4%	30.8%	23.1%	7.7%	15.4%	.0%	100.0%
		% of Total	7.1%	14.3%	28.6%	21.4%	7.1%	14.3%	.0%	92.9%
	male	Count	0	0	0	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	7.1%	7.1%
Total		Count	1	2	4	3	1	2	1	14
		% within Gender	7.1%	14.3%	28.6%	21.4%	7.1%	14.3%	7.1%	100.0%
		% of Total	7.1%	14.3%	28.6%	21.4%	7.1%	14.3%	7.1%	100.0%

Gender * Capital investment required - after Crosstabulation

			Capital investment required - after							
			Least important	2	3	4	6	7	8	Total
Gender	female	Count	1	2	2	2	2	1	2	12
		% within Gender	8.3%	16.7%	16.7%	16.7%	16.7%	8.3%	16.7%	100.0%
		% of Total	7.7%	15.4%	15.4%	15.4%	15.4%	7.7%	15.4%	92.3%
	male	Count	0	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	7.7%	.0%	.0%	.0%	7.7%
Total		Count	1	2	2	3	2	1	2	13
		% within Gender	7.7%	15.4%	15.4%	23.1%	15.4%	7.7%	15.4%	100.0%
		% of Total	7.7%	15.4%	15.4%	23.1%	15.4%	7.7%	15.4%	100.0%

Gender * Impact on program quality - before Crosstabulation

			Impact on program quality - before						
			Least important	4	6	8	9	Most important	Total
Gender	female	Count	1	1	1	1	5	5	14
		% within Gender	7.1%	7.1%	7.1%	7.1%	35.7%	35.7%	100.0%
		% of Total	6.7%	6.7%	6.7%	6.7%	33.3%	33.3%	93.3%
	male	Count	0	1	0	0	0	0	1
		% within Gender	.0%	100.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	6.7%	.0%	.0%	.0%	.0%	6.7%
Total		Count	1	2	1	1	5	5	15
		% within Gender	6.7%	13.3%	6.7%	6.7%	33.3%	33.3%	100.0%
		% of Total	6.7%	13.3%	6.7%	6.7%	33.3%	33.3%	100.0%

Gender * Impact on program quality - after Crosstabulation

			Impact on program quality - after						
			Least important	6	7	8	9	Most important	Total
Gender	female	Count	1	2	1	2	6	1	13
		% within Gender	7.7%	15.4%	7.7%	15.4%	46.2%	7.7%	100.0%
		% of Total	7.1%	14.3%	7.1%	14.3%	42.9%	7.1%	92.9%
	male	Count	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.1%	.0%	.0%	.0%	7.1%
Total		Count	1	2	2	2	6	1	14
		% within Gender	7.1%	14.3%	14.3%	14.3%	42.9%	7.1%	100.0%
		% of Total	7.1%	14.3%	14.3%	14.3%	42.9%	7.1%	100.0%

Gender * Measurable benefits - before Crosstabulation

			Measurable benefits - before								
			Least important	2	3	5	7	8	9	Most important	Total
Gender	female	Count	1	1	1	1	3	3	2	2	14
		% within Gender	7.1%	7.1%	7.1%	7.1%	21.4%	21.4%	14.3%	14.3%	100.0%
		% of Total	6.7%	6.7%	6.7%	6.7%	20.0%	20.0%	13.3%	13.3%	93.3%
	male	Count	1	0	0	0	0	0	0	0	1
		% within Gender	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	6.7%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	6.7%
Total		Count	2	1	1	1	3	3	2	2	15
		% within Gender	13.3%	6.7%	6.7%	6.7%	20.0%	20.0%	13.3%	13.3%	100.0%
		% of Total	13.3%	6.7%	6.7%	6.7%	20.0%	20.0%	13.3%	13.3%	100.0%

Gender * Measurable benefits - after Crosstabulation

			Measurable benefits - after							
			3	4	5	7	8	9	Most important	Total
Gender	female	Count	1	1	2	2	2	2	3	13
		% within Gender	7.7%	7.7%	15.4%	15.4%	15.4%	15.4%	23.1%	100.0%
		% of Total	7.1%	7.1%	14.3%	14.3%	14.3%	14.3%	21.4%	92.9%
	male	Count	0	0	0	0	0	1	0	1
		% within Gender	.0%	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	7.1%	.0%	7.1%
Total		Count	1	1	2	2	2	3	3	14
		% within Gender	7.1%	7.1%	14.3%	14.3%	14.3%	21.4%	21.4%	100.0%
		% of Total	7.1%	7.1%	14.3%	14.3%	14.3%	21.4%	21.4%	100.0%

Gender * Customer perspective - before Crosstabulation

			Customer perspective - before							
			2	3	4	7	8	9	Most important	Total
Gender	female	Count	3	1	1	2	4	1	2	14
		% within Gender	21.4%	7.1%	7.1%	14.3%	28.6%	7.1%	14.3%	100.0%
		% of Total	20.0%	6.7%	6.7%	13.3%	26.7%	6.7%	13.3%	93.3%
	male	Count	0	1	0	0	0	0	0	1
		% within Gender	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	6.7%	.0%	.0%	.0%	.0%	.0%	6.7%
Total		Count	3	2	1	2	4	1	2	15
		% within Gender	20.0%	13.3%	6.7%	13.3%	26.7%	6.7%	13.3%	100.0%
		% of Total	20.0%	13.3%	6.7%	13.3%	26.7%	6.7%	13.3%	100.0%

Gender * Customer perspective - after Crosstabulation

			Customer perspective - after							
			2	3	6	7	8	9	Most important	Total
Gender	female	Count	2	1	1	2	4	1	2	13
		% within Gender	15.4%	7.7%	7.7%	15.4%	30.8%	7.7%	15.4%	100.0%
		% of Total	14.3%	7.1%	7.1%	14.3%	28.6%	7.1%	14.3%	92.9%
	male	Count	0	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.1%	.0%	.0%	7.1%
Total		Count	2	1	1	2	5	1	2	14
		% within Gender	14.3%	7.1%	7.1%	14.3%	35.7%	7.1%	14.3%	100.0%
		% of Total	14.3%	7.1%	7.1%	14.3%	35.7%	7.1%	14.3%	100.0%

Gender * Quality of the project proposal - before Crosstabulation

			Quality of the project proposal - before									Total
			Least important	2	3	4	5	6	7	9	Most important	
Gender	female	Count	1	1	2	1	1	2	1	3	1	13
		% within Gender	7.7%	7.7%	15.4%	7.7%	7.7%	15.4%	7.7%	23.1%	7.7%	100.0%
		% of Total	7.1%	7.1%	14.3%	7.1%	7.1%	14.3%	7.1%	21.4%	7.1%	92.9%
	male	Count	0	1	0	0	0	0	0	0	0	1
		% within Gender	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	7.1%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	7.1%
Total		Count	1	2	2	1	1	2	1	3	1	14
		% within Gender	7.1%	14.3%	14.3%	7.1%	7.1%	14.3%	7.1%	21.4%	7.1%	100.0%
		% of Total	7.1%	14.3%	14.3%	7.1%	7.1%	14.3%	7.1%	21.4%	7.1%	100.0%

Gender * Quality of the project proposal - after Crosstabulation

			Quality of the project proposal - after									Total
			Least important	2	3	4	5	6	7	8	Most important	
Gender	female	Count	1	0	2	1	2	1	1	3	1	12
		% within Gender	8.3%	.0%	16.7%	8.3%	16.7%	8.3%	8.3%	25.0%	8.3%	100.0%
		% of Total	7.7%	.0%	15.4%	7.7%	15.4%	7.7%	7.7%	23.1%	7.7%	92.3%
	male	Count	0	1	0	0	0	0	0	0	0	1
		% within Gender	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	7.7%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	7.7%
Total		Count	1	1	2	1	2	1	1	3	1	13
		% within Gender	7.7%	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	23.1%	7.7%	100.0%
		% of Total	7.7%	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	23.1%	7.7%	100.0%

Gender * Project resources required - before Crosstabulation

			Project resources required - before							
			2	4	5	6	7	8	9	Total
Gender	female	Count	2	5	1	3	0	1	1	13
		% within Gender	15.4%	38.5%	7.7%	23.1%	.0%	7.7%	7.7%	100.0%
		% of Total	14.3%	35.7%	7.1%	21.4%	.0%	7.1%	7.1%	92.9%
	male	Count	0	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.1%	.0%	.0%	7.1%
Total		Count	2	5	1	3	1	1	1	14
		% within Gender	14.3%	35.7%	7.1%	21.4%	7.1%	7.1%	7.1%	100.0%
		% of Total	14.3%	35.7%	7.1%	21.4%	7.1%	7.1%	7.1%	100.0%

Gender * Project resources required - after Crosstabulation

			Project resources required - after									
			Least important	2	3	4	5	6	7	8	9	Total
Gender	female	Count	0	2	1	2	1	1	1	3	1	12
		% within Gender	.0%	16.7%	8.3%	16.7%	8.3%	8.3%	8.3%	25.0%	8.3%	100.0%
		% of Total	.0%	15.4%	7.7%	15.4%	7.7%	7.7%	7.7%	23.1%	7.7%	92.3%
	male	Count	1	0	0	0	0	0	0	0	0	1
		% within Gender	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	7.7%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	7.7%
Total		Count	1	2	1	2	1	1	1	3	1	13
		% within Gender	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	7.7%	23.1%	7.7%	100.0%
		% of Total	7.7%	15.4%	7.7%	15.4%	7.7%	7.7%	7.7%	23.1%	7.7%	100.0%

Gender * Before we began, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			Before we began, I knew how to define a strategic gap and plan a project to fix it								
			Strongly disagree	2	3	4	5	6	7	Strongly agree	Total
Gender	female	Count	2	3	1	1	1	2	5	2	17
		% within Gender	11.8%	17.6%	5.9%	5.9%	5.9%	11.8%	29.4%	11.8%	100.0%
		% of Total	11.1%	16.7%	5.6%	5.6%	5.6%	11.1%	27.8%	11.1%	94.4%
	male	Count	0	0	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	.0%	.0%	5.6%
Total		Count	2	3	1	1	2	2	5	2	18
		% within Gender	11.1%	16.7%	5.6%	5.6%	11.1%	11.1%	27.8%	11.1%	100.0%
		% of Total	11.1%	16.7%	5.6%	5.6%	11.1%	11.1%	27.8%	11.1%	100.0%

Gender * After we finish, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			After we finish, I knew how to define a strategic gap and plan a project to fix it							
			4	5	6	7	8	9	Strongly agree	Total
Gender	female	Count	1	1	1	3	5	5	1	17
		% within Gender	5.9%	5.9%	5.9%	17.6%	29.4%	29.4%	5.9%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	27.8%	27.8%	5.6%	94.4%
	male	Count	0	0	0	0	1	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	.0%	5.6%
Total		Count	1	1	1	3	6	5	1	18
		% within Gender	5.6%	5.6%	5.6%	16.7%	33.3%	27.8%	5.6%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	33.3%	27.8%	5.6%	100.0%

Gender * Learning this process will help me be more strategic in my role within PLASP Crosstabulation

			Learning this process will help me be more strategic in my role within PLASP			
			8	9	Strongly agree	Total
Gender	female	Count	6	7	4	17
		% within Gender	35.3%	41.2%	23.5%	100.0%
		% of Total	33.3%	38.9%	22.2%	94.4%
	male	Count	0	0	1	1
		% within Gender	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	5.6%	5.6%
Total		Count	6	7	5	18
		% within Gender	33.3%	38.9%	27.8%	100.0%
		% of Total	33.3%	38.9%	27.8%	100.0%

Gender * Initial training workshop on the methodology Crosstabulation

			Initial training workshop on the methodology						
			3	5	7	8	9	Most impact	Total
Gender	female	Count	1	1	2	4	7	2	17
		% within Gender	5.9%	5.9%	11.8%	23.5%	41.2%	11.8%	100.0%
		% of Total	5.6%	5.6%	11.1%	22.2%	38.9%	11.1%	94.4%
	male	Count	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	.0%	.0%	5.6%
Total		Count	1	1	3	4	7	2	18
		% within Gender	5.6%	5.6%	16.7%	22.2%	38.9%	11.1%	100.0%
		% of Total	5.6%	5.6%	16.7%	22.2%	38.9%	11.1%	100.0%

Gender * Clear executive support to implement this Crosstabulation

			Clear executive support to implement this					
			5	7	8	9	Most impact	Total
Gender	female	Count	1	2	1	7	6	17
		% within Gender	5.9%	11.8%	5.9%	41.2%	35.3%	100.0%
		% of Total	5.6%	11.1%	5.6%	38.9%	33.3%	94.4%
	male	Count	0	0	0	1	0	1
		% within Gender	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	2	1	8	6	18
		% within Gender	5.6%	11.1%	5.6%	44.4%	33.3%	100.0%
		% of Total	5.6%	11.1%	5.6%	44.4%	33.3%	100.0%

Gender * Involvment of staff on the project team Crosstabulation

			Involvment of staff on the project team				
			4	8	9	Most impact	Total
Gender	female	Count	1	1	6	9	17
		% within Gender	5.9%	5.9%	35.3%	52.9%	100.0%
		% of Total	5.6%	5.6%	33.3%	50.0%	94.4%
	male	Count	0	1	0	0	1
		% within Gender	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	.0%	5.6%
Total		Count	1	2	6	9	18
		% within Gender	5.6%	11.1%	33.3%	50.0%	100.0%
		% of Total	5.6%	11.1%	33.3%	50.0%	100.0%

Gender * The ability to state & measure strategy clearly Crosstabulation

			The ability to state & measure strategy clearly				
			7	8	9	Most impact	Total
Gender	female	Count	3	3	5	6	17
		% within Gender	17.6%	17.6%	29.4%	35.3%	100.0%
		% of Total	16.7%	16.7%	27.8%	33.3%	94.4%
	male	Count	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	5.6%
Total		Count	3	3	5	7	18
		% within Gender	16.7%	16.7%	27.8%	38.9%	100.0%
		% of Total	16.7%	16.7%	27.8%	38.9%	100.0%

Gender * The fact the method is used in the private sector Crosstabulation

			The fact the method is used in the private sector								
			Least impact	2	3	5	6	7	8	9	Total
Gender	female	Count	1	2	5	2	3	1	2	1	17
		% within Gender	5.9%	11.8%	29.4%	11.8%	17.6%	5.9%	11.8%	5.9%	100.0%
		% of Total	5.6%	11.1%	27.8%	11.1%	16.7%	5.6%	11.1%	5.6%	94.4%
	male	Count	0	0	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	.0%	.0%	5.6%
Total		Count	1	2	5	2	4	1	2	1	18
		% within Gender	5.6%	11.1%	27.8%	11.1%	22.2%	5.6%	11.1%	5.6%	100.0%
		% of Total	5.6%	11.1%	27.8%	11.1%	22.2%	5.6%	11.1%	5.6%	100.0%

Gender * Reading about others' successes & failures Crosstabulation

			Reading about others' successes & failures							
			3	4	5	6	7	8	Most impact	Total
Gender	female	Count	1	3	3	2	4	3	1	17
		% within Gender	5.9%	17.6%	17.6%	11.8%	23.5%	17.6%	5.9%	100.0%
		% of Total	5.6%	16.7%	16.7%	11.1%	22.2%	16.7%	5.6%	94.4%
	male	Count	0	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	.0%	.0%	.0%	5.6%
Total		Count	1	3	3	3	4	3	1	18
		% within Gender	5.6%	16.7%	16.7%	16.7%	22.2%	16.7%	5.6%	100.0%
		% of Total	5.6%	16.7%	16.7%	16.7%	22.2%	16.7%	5.6%	100.0%

Gender * Using outside facilitators to manage meetings Crosstabulation

			Using outside facilitators to manage meetings					
			6	7	8	9	Most impact	Total
Gender	female	Count	1	1	2	3	10	17
		% within Gender	5.9%	5.9%	11.8%	17.6%	58.8%	100.0%
		% of Total	5.6%	5.6%	11.1%	16.7%	55.6%	94.4%
	male	Count	0	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	5.6%
Total		Count	1	1	2	3	11	18
		% within Gender	5.6%	5.6%	11.1%	16.7%	61.1%	100.0%
		% of Total	5.6%	5.6%	11.1%	16.7%	61.1%	100.0%

Gender * Having consultants available to support us Crosstabulation

			Having consultants available to support us				
			7	8	9	Most impact	Total
Gender	female	Count	1	2	5	9	17
		% within Gender	5.9%	11.8%	29.4%	52.9%	100.0%
		% of Total	5.6%	11.1%	27.8%	50.0%	94.4%
	male	Count	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	5.6%
Total		Count	1	2	5	10	18
		% within Gender	5.6%	11.1%	27.8%	55.6%	100.0%
		% of Total	5.6%	11.1%	27.8%	55.6%	100.0%

Gender * My time commitment required to learn methodology Crosstabulation

			My time commitment required to learn methodology						
			3	5	7	8	9	Most impact	Total
Gender	female	Count	1	1	1	3	8	3	17
		% within Gender	5.9%	5.9%	5.9%	17.6%	47.1%	17.6%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	44.4%	16.7%	94.4%
	male	Count	0	0	0	0	1	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	1	1	3	9	3	18
		% within Gender	5.6%	5.6%	5.6%	16.7%	50.0%	16.7%	100.0%
		% of Total	5.6%	5.6%	5.6%	16.7%	50.0%	16.7%	100.0%

Gender * The time required before results are achieved Crosstabulation

			The time required before results are achieved						
			5	6	7	8	9	Most impact	Total
Gender	female	Count	1	2	2	5	5	2	17
		% within Gender	5.9%	11.8%	11.8%	29.4%	29.4%	11.8%	100.0%
		% of Total	5.6%	11.1%	11.1%	27.8%	27.8%	11.1%	94.4%
	male	Count	0	0	0	0	1	0	1
		% within Gender	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	2	2	5	6	2	18
		% within Gender	5.6%	11.1%	11.1%	27.8%	33.3%	11.1%	100.0%
		% of Total	5.6%	11.1%	11.1%	27.8%	33.3%	11.1%	100.0%

Gender * I think the process is sound Crosstabulation

			I think the process is sound				
			7	8	9	Strongly agree	Total
Gender	female	Count	1	3	4	9	17
		% within Gender	5.9%	17.6%	23.5%	52.9%	100.0%
		% of Total	5.6%	16.7%	22.2%	50.0%	94.4%
	male	Count	0	0	1	0	1
		% within Gender	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	5.6%
Total		Count	1	3	5	9	18
		% within Gender	5.6%	16.7%	27.8%	50.0%	100.0%
		% of Total	5.6%	16.7%	27.8%	50.0%	100.0%

Gender * I think the process is relevant to us Crosstabulation

			I think the process is relevant to us			
			8	9	Strongly agree	Total
Gender	female	Count	2	5	10	17
		% within Gender	11.8%	29.4%	58.8%	100.0%
		% of Total	11.1%	27.8%	55.6%	94.4%
	male	Count	0	1	0	1
		% within Gender	.0%	100.0%	.0%	100.0%
		% of Total	.0%	5.6%	.0%	5.6%
Total		Count	2	6	10	18
		% within Gender	11.1%	33.3%	55.6%	100.0%
		% of Total	11.1%	33.3%	55.6%	100.0%

Gender * I think the process will generate results for us Crosstabulation

			I think the process will generate results for us				
			7	8	9	Strongly agree	Total
Gender	female	Count	2	1	3	11	17
		% within Gender	11.8%	5.9%	17.6%	64.7%	100.0%
		% of Total	11.1%	5.6%	16.7%	61.1%	94.4%
	male	Count	0	0	0	1	1
		% within Gender	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.6%	5.6%
Total		Count	2	1	3	12	18
		% within Gender	11.1%	5.6%	16.7%	66.7%	100.0%
		% of Total	11.1%	5.6%	16.7%	66.7%	100.0%

Gender * I think the process will be accepted by others Crosstabulation

			I think the process will be accepted by others						
			5	6	7	8	9	Strongly agree	Total
Gender	female	Count	1	6	3	2	2	3	17
		% within Gender	5.9%	35.3%	17.6%	11.8%	11.8%	17.6%	100.0%
		% of Total	5.6%	33.3%	16.7%	11.1%	11.1%	16.7%	94.4%
	male	Count	0	0	1	0	0	0	1
		% within Gender	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.6%	.0%	.0%	.0%	5.6%
Total		Count	1	6	4	2	2	3	18
		% within Gender	5.6%	33.3%	22.2%	11.1%	11.1%	16.7%	100.0%
		% of Total	5.6%	33.3%	22.2%	11.1%	11.1%	16.7%	100.0%

Gender * Have you previously worked with the Balanced Scorecard? Crosstabulation

			Have you previously worked with the Balanced Scorecard?	
			no	Total
Gender	female	Count	14	14
		% within Gender	100.0%	100.0%
		% of Total	93.3%	93.3%
	male	Count	1	1
		% within Gender	100.0%	100.0%
		% of Total	6.7%	6.7%
Total		Count	15	15
		% within Gender	100.0%	100.0%
		% of Total	100.0%	100.0%

Age * Before participating on this team, my understanding of PLASP's strategy was clear Crosstabulation

			Before participating on this team, my understanding of PLASP's strategy was clear							
			3	5	6	7	8	9	Strongly agree	Total
Age	26-35	Count	0	1	0	0	0	0	0	1
		% within Age	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	.0%	.0%	.0%	.0%	5.9%
	36-45	Count	0	1	0	1	1	0	0	3
		% within Age	.0%	33.3%	.0%	33.3%	33.3%	.0%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	5.9%	5.9%	.0%	.0%	17.6%
	46-55	Count	1	1	1	1	1	1	2	8
		% within Age	12.5%	12.5%	12.5%	12.5%	12.5%	12.5%	25.0%	100.0%
		% of Total	5.9%	5.9%	5.9%	5.9%	5.9%	5.9%	11.8%	47.1%
	56+	Count	1	0	0	0	2	2	0	5
		% within Age	20.0%	.0%	.0%	.0%	40.0%	40.0%	.0%	100.0%
		% of Total	5.9%	.0%	.0%	.0%	11.8%	11.8%	.0%	29.4%
Total		Count	2	3	1	2	4	3	2	17
		% within Age	11.8%	17.6%	5.9%	11.8%	23.5%	17.6%	11.8%	100.0%
		% of Total	11.8%	17.6%	5.9%	11.8%	23.5%	17.6%	11.8%	100.0%

Age * After participating on this team, my understanding of PLASP's strategy is clearer Crosstabulation

			After participating on this team, my understanding of PLASP's strategy is clearer			
			8	9	Strongly agree	Total
Age	26-35	Count	1	0	0	1
		% within Age	100.0%	.0%	.0%	100.0%
		% of Total	5.9%	.0%	.0%	5.9%
	36-45	Count	0	3	0	3
		% within Age	.0%	100.0%	.0%	100.0%
		% of Total	.0%	17.6%	.0%	17.6%
	46-55	Count	2	2	4	8
		% within Age	25.0%	25.0%	50.0%	100.0%
		% of Total	11.8%	11.8%	23.5%	47.1%
	56+	Count	0	1	4	5
		% within Age	.0%	20.0%	80.0%	100.0%
		% of Total	.0%	5.9%	23.5%	29.4%
Total		Count	3	6	8	17
		% within Age	17.6%	35.3%	47.1%	100.0%
		% of Total	17.6%	35.3%	47.1%	100.0%

Age * The team's output will comunicate our strategy across the organization clearly Crosstabulation

			The team's output will comunicate our strategy across the organization clearly						
			5	6	7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	1	0	0	1
		% within Age	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	.0%	.0%	5.9%
	36-45	Count	1	0	0	0	2	0	3
		% within Age	33.3%	.0%	.0%	.0%	66.7%	.0%	100.0%
		% of Total	5.9%	.0%	.0%	.0%	11.8%	.0%	17.6%
	46-55	Count	0	0	1	1	2	4	8
		% within Age	.0%	.0%	12.5%	12.5%	25.0%	50.0%	100.0%
		% of Total	.0%	.0%	5.9%	5.9%	11.8%	23.5%	47.1%
	56+	Count	0	1	0	0	3	1	5
		% within Age	.0%	20.0%	.0%	.0%	60.0%	20.0%	100.0%
		% of Total	.0%	5.9%	.0%	.0%	17.6%	5.9%	29.4%
Total		Count	1	1	1	2	7	5	17
		% within Age	5.9%	5.9%	5.9%	11.8%	41.2%	29.4%	100.0%
		% of Total	5.9%	5.9%	5.9%	11.8%	41.2%	29.4%	100.0%

Age * There was a personal benefit to me from participating on this team Crosstabulation

			There was a personal benefit to me from participating on this team			
			7	9	Strongly agree	Total
Age	26-35	Count	0	0	1	1
		% within Age	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	5.9%	5.9%
	36-45	Count	1	2	0	3
		% within Age	33.3%	66.7%	.0%	100.0%
		% of Total	5.9%	11.8%	.0%	17.6%
	46-55	Count	0	3	5	8
		% within Age	.0%	37.5%	62.5%	100.0%
		% of Total	.0%	17.6%	29.4%	47.1%
	56+	Count	0	2	3	5
		% within Age	.0%	40.0%	60.0%	100.0%
		% of Total	.0%	11.8%	17.6%	29.4%
Total		Count	1	7	9	17
		% within Age	5.9%	41.2%	52.9%	100.0%
		% of Total	5.9%	41.2%	52.9%	100.0%

Age * There was an organizational benefit to me from participating on this team Crosstabulation

			There was an organizational benefit to me from participating on this team		
			9	Strongly agree	Total
Age	26-35	Count	0	1	1
		% within Age	.0%	100.0%	100.0%
		% of Total	.0%	5.9%	5.9%
	36-45	Count	2	1	3
		% within Age	66.7%	33.3%	100.0%
		% of Total	11.8%	5.9%	17.6%
	46-55	Count	0	8	8
		% within Age	.0%	100.0%	100.0%
		% of Total	.0%	47.1%	47.1%
	56+	Count	2	3	5
		% within Age	40.0%	60.0%	100.0%
		% of Total	11.8%	17.6%	29.4%
Total		Count	4	13	17
		% within Age	23.5%	76.5%	100.0%
		% of Total	23.5%	76.5%	100.0%

Age * I would recommend this process to another organization as having high value Crosstabulation

			I would recommend this process to another organization as having high value				
			7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	0	2	1	3
		% within Age	.0%	.0%	66.7%	33.3%	100.0%
		% of Total	.0%	.0%	11.8%	5.9%	17.6%
	46-55	Count	1	0	2	5	8
		% within Age	12.5%	.0%	25.0%	62.5%	100.0%
		% of Total	5.9%	.0%	11.8%	29.4%	47.1%
	56+	Count	0	1	2	2	5
		% within Age	.0%	20.0%	40.0%	40.0%	100.0%
		% of Total	.0%	5.9%	11.8%	11.8%	29.4%
Total		Count	1	1	6	9	17
		% within Age	5.9%	5.9%	35.3%	52.9%	100.0%
		% of Total	5.9%	5.9%	35.3%	52.9%	100.0%

Age * Before we began, I thought PLASP's internal processes were efficient Crosstabulation

			Before we began, I thought PLASP's internal processes were efficient						Total
			3	4	5	6	7	8	
Age	26-35	Count	0	0	0	0	1	0	1
		% within Age	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.9%	.0%	5.9%
	36-45	Count	0	0	1	1	0	1	3
		% within Age	.0%	.0%	33.3%	33.3%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	5.9%	5.9%	.0%	5.9%	17.6%
	46-55	Count	1	2	2	1	1	1	8
		% within Age	12.5%	25.0%	25.0%	12.5%	12.5%	12.5%	100.0%
		% of Total	5.9%	11.8%	11.8%	5.9%	5.9%	5.9%	47.1%
	56+	Count	0	0	2	1	2	0	5
		% within Age	.0%	.0%	40.0%	20.0%	40.0%	.0%	100.0%
		% of Total	.0%	.0%	11.8%	5.9%	11.8%	.0%	29.4%
Total		Count	1	2	5	3	4	2	17
		% within Age	5.9%	11.8%	29.4%	17.6%	23.5%	11.8%	100.0%
		% of Total	5.9%	11.8%	29.4%	17.6%	23.5%	11.8%	100.0%

Age * After we finish, I think PLASP's internal processes will be more efficient Crosstabulation

			After we finish, I think PLASP's internal processes will be more efficient						
			4	5	6	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	0	1	0	1
		% within Age	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.9%	.0%	5.9%
	36-45	Count	0	1	0	0	2	0	3
		% within Age	.0%	33.3%	.0%	.0%	66.7%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	.0%	11.8%	.0%	17.6%
	46-55	Count	1	0	1	0	5	1	8
		% within Age	12.5%	.0%	12.5%	.0%	62.5%	12.5%	100.0%
		% of Total	5.9%	.0%	5.9%	.0%	29.4%	5.9%	47.1%
	56+	Count	0	0	0	2	2	1	5
		% within Age	.0%	.0%	.0%	40.0%	40.0%	20.0%	100.0%
		% of Total	.0%	.0%	.0%	11.8%	11.8%	5.9%	29.4%
Total		Count	1	1	1	2	10	2	17
		% within Age	5.9%	5.9%	5.9%	11.8%	58.8%	11.8%	100.0%
		% of Total	5.9%	5.9%	5.9%	11.8%	58.8%	11.8%	100.0%

Age * Before we began, I thought PLASP's internal processes were effective Crosstabulation

			Before we began, I thought PLASP's internal processes were effective						
			4	5	6	7	8	9	Total
Age	26-35	Count	0	0	0	1	0	0	1
		% within Age	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	.0%	.0%	5.9%
	36-45	Count	0	1	1	0	0	1	3
		% within Age	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	5.9%	5.9%	.0%	.0%	5.9%	17.6%
	46-55	Count	2	2	1	1	1	1	8
		% within Age	25.0%	25.0%	12.5%	12.5%	12.5%	12.5%	100.0%
		% of Total	11.8%	11.8%	5.9%	5.9%	5.9%	5.9%	47.1%
	56+	Count	0	1	0	4	0	0	5
		% within Age	.0%	20.0%	.0%	80.0%	.0%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	23.5%	.0%	.0%	29.4%
Total		Count	2	4	2	6	1	2	17
		% within Age	11.8%	23.5%	11.8%	35.3%	5.9%	11.8%	100.0%
		% of Total	11.8%	23.5%	11.8%	35.3%	5.9%	11.8%	100.0%

Age * After we finish, I think PLASP's internal processes will be more effective Crosstabulation

			After we finish, I think PLASP's internal processes will be more effective				
			7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	1	0	1
		% within Age	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	5.9%
	36-45	Count	1	0	2	0	3
		% within Age	33.3%	.0%	66.7%	.0%	100.0%
		% of Total	5.9%	.0%	11.8%	.0%	17.6%
	46-55	Count	1	1	4	2	8
		% within Age	12.5%	12.5%	50.0%	25.0%	100.0%
		% of Total	5.9%	5.9%	23.5%	11.8%	47.1%
	56+	Count	0	1	3	1	5
		% within Age	.0%	20.0%	60.0%	20.0%	100.0%
		% of Total	.0%	5.9%	17.6%	5.9%	29.4%
Total		Count	2	2	10	3	17
		% within Age	11.8%	11.8%	58.8%	17.6%	100.0%
		% of Total	11.8%	11.8%	58.8%	17.6%	100.0%

Age * This effort had a beneficial effect on my understanding of business process generally Crosstabulation

			This effort had a beneficial effect on my understanding of business process generally				
			7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	1	2	0	0	3
		% within Age	33.3%	66.7%	.0%	.0%	100.0%
		% of Total	5.9%	11.8%	.0%	.0%	17.6%
	46-55	Count	0	4	2	2	8
		% within Age	.0%	50.0%	25.0%	25.0%	100.0%
		% of Total	.0%	23.5%	11.8%	11.8%	47.1%
	56+	Count	1	3	0	1	5
		% within Age	20.0%	60.0%	.0%	20.0%	100.0%
		% of Total	5.9%	17.6%	.0%	5.9%	29.4%
Total		Count	2	9	2	4	17
		% within Age	11.8%	52.9%	11.8%	23.5%	100.0%
		% of Total	11.8%	52.9%	11.8%	23.5%	100.0%

Age * The return from BSC exceeds the effort spent Crosstabulation

			The return from BSC exceeds the effort spent				
			7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	3	0	0	3
		% within Age	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	17.6%	.0%	.0%	17.6%
	46-55	Count	0	2	3	3	8
		% within Age	.0%	25.0%	37.5%	37.5%	100.0%
		% of Total	.0%	11.8%	17.6%	17.6%	47.1%
	56+	Count	1	2	1	1	5
		% within Age	20.0%	40.0%	20.0%	20.0%	100.0%
		% of Total	5.9%	11.8%	5.9%	5.9%	29.4%
Total		Count	1	7	4	5	17
		% within Age	5.9%	41.2%	23.5%	29.4%	100.0%
		% of Total	5.9%	41.2%	23.5%	29.4%	100.0%

Age * Before we began, PLASP had too many projects underway at the same time Crosstabulation

			Before we began, PLASP had too many projects underway at the same time								
			2	3	5	6	7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	1	0	0	0	0	0	1
		% within Age	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	.0%	.0%	.0%	.0%	5.9%
	36-45	Count	1	1	1	0	0	0	0	0	3
		% within Age	33.3%	33.3%	33.3%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	5.9%	5.9%	5.9%	.0%	.0%	.0%	.0%	.0%	17.6%
	46-55	Count	0	0	1	1	0	1	2	3	8
		% within Age	.0%	.0%	12.5%	12.5%	.0%	12.5%	25.0%	37.5%	100.0%
		% of Total	.0%	.0%	5.9%	5.9%	.0%	5.9%	11.8%	17.6%	47.1%
	56+	Count	0	0	1	0	1	1	2	0	5
		% within Age	.0%	.0%	20.0%	.0%	20.0%	20.0%	40.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	5.9%	5.9%	11.8%	.0%	29.4%
Total		Count	1	1	4	1	1	2	4	3	17
		% within Age	5.9%	5.9%	23.5%	5.9%	5.9%	11.8%	23.5%	17.6%	100.0%
		% of Total	5.9%	5.9%	23.5%	5.9%	5.9%	11.8%	23.5%	17.6%	100.0%

Age * After we finish, PLASP will have too many projects underway at the same time Crosstabulation

			After we finish, PLASP will have too many projects underway at the same time										Total
			Strongly disagree	2	3	4	5	6	7	8	9	Strongly agree	
Age	26-35	Count	0	0	0	0	1	0	0	0	0	0	1
		% within Age	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.9%	.0%	.0%	.0%	.0%	.0%	5.9%
	36-45	Count	1	1	0	0	0	1	0	0	0	0	3
		% within Age	33.3%	33.3%	.0%	.0%	.0%	33.3%	.0%	.0%	.0%	.0%	100.0%
		% of Total	5.9%	5.9%	.0%	.0%	.0%	5.9%	.0%	.0%	.0%	.0%	17.6%
	46-55	Count	0	1	2	0	0	1	1	1	1	1	8
		% within Age	.0%	12.5%	25.0%	.0%	.0%	12.5%	12.5%	12.5%	12.5%	12.5%	100.0%
		% of Total	.0%	5.9%	11.8%	.0%	.0%	5.9%	5.9%	5.9%	5.9%	5.9%	47.1%
	56+	Count	0	0	2	1	1	0	0	1	0	0	5
		% within Age	.0%	.0%	40.0%	20.0%	20.0%	.0%	.0%	20.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	11.8%	5.9%	5.9%	.0%	.0%	5.9%	.0%	.0%	29.4%
Total		Count	1	2	4	1	2	2	1	2	1	1	17
		% within Age	5.9%	11.8%	23.5%	5.9%	11.8%	11.8%	5.9%	11.8%	5.9%	5.9%	100.0%
		% of Total	5.9%	11.8%	23.5%	5.9%	11.8%	11.8%	5.9%	11.8%	5.9%	5.9%	100.0%

Age * Before we began, I had difficulty determining which projects were more strategic Crosstabulation

			Before we began, I had difficulty determining which projects were more strategic								
			Strongly disagree	4	5	6	7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	1	0	0	0	0	0	1
		% within Age	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	.0%	.0%	.0%	.0%	5.9%
	36-45	Count	1	0	0	0	0	1	1	0	3
		% within Age	33.3%	.0%	.0%	.0%	.0%	33.3%	33.3%	.0%	100.0%
		% of Total	5.9%	.0%	.0%	.0%	.0%	5.9%	5.9%	.0%	17.6%
	46-55	Count	0	2	0	2	0	1	2	1	8
		% within Age	.0%	25.0%	.0%	25.0%	.0%	12.5%	25.0%	12.5%	100.0%
		% of Total	.0%	11.8%	.0%	11.8%	.0%	5.9%	11.8%	5.9%	47.1%
	56+	Count	0	1	1	0	1	2	0	0	5
		% within Age	.0%	20.0%	20.0%	.0%	20.0%	40.0%	.0%	.0%	100.0%
		% of Total	.0%	5.9%	5.9%	.0%	5.9%	11.8%	.0%	.0%	29.4%
Total		Count	1	3	2	2	1	4	3	1	17
		% within Age	5.9%	17.6%	11.8%	11.8%	5.9%	23.5%	17.6%	5.9%	100.0%
		% of Total	5.9%	17.6%	11.8%	11.8%	5.9%	23.5%	17.6%	5.9%	100.0%

Age * After we finish, I will have difficulty determining which projects are more strategic Crosstabulation

			After we finish, I will have difficulty determining which projects are more strategic								
			Strongly disagree	2	3	4	5	6	7	9	Total
Age	26-35	Count	1	0	0	0	0	0	0	0	1
		% within Age	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	5.9%	.0%	.0%	.0%	.0%	.0%	.0%	.0%	5.9%
	36-45	Count	1	0	0	0	0	1	0	1	3
		% within Age	33.3%	.0%	.0%	.0%	.0%	33.3%	.0%	33.3%	100.0%
		% of Total	5.9%	.0%	.0%	.0%	.0%	5.9%	.0%	5.9%	17.6%
	46-55	Count	2	2	0	2	1	0	1	0	8
		% within Age	25.0%	25.0%	.0%	25.0%	12.5%	.0%	12.5%	.0%	100.0%
		% of Total	11.8%	11.8%	.0%	11.8%	5.9%	.0%	5.9%	.0%	47.1%
	56+	Count	2	2	1	0	0	0	0	0	5
		% within Age	40.0%	40.0%	20.0%	.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	11.8%	11.8%	5.9%	.0%	.0%	.0%	.0%	.0%	29.4%
Total		Count	6	4	1	2	1	1	1	1	17
		% within Age	35.3%	23.5%	5.9%	11.8%	5.9%	5.9%	5.9%	5.9%	100.0%
		% of Total	35.3%	23.5%	5.9%	11.8%	5.9%	5.9%	5.9%	5.9%	100.0%

Age * Who the project sponsor is - before Crosstabulation

			Who the project sponsor is - before								
			Least important	3	5	6	7	8	9	Most important	Total
Age	36-45	Count	0	0	1	0	0	1	0	0	2
		% within Age	.0%	.0%	50.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	7.7%	.0%	.0%	15.4%
	46-55	Count	1	1	2	0	1	0	1	2	8
		% within Age	12.5%	12.5%	25.0%	.0%	12.5%	.0%	12.5%	25.0%	100.0%
		% of Total	7.7%	7.7%	15.4%	.0%	7.7%	.0%	7.7%	15.4%	61.5%
	56+	Count	1	0	0	1	0	0	1	0	3
		% within Age	33.3%	.0%	.0%	33.3%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	7.7%	.0%	.0%	7.7%	.0%	.0%	7.7%	.0%	23.1%
Total		Count	2	1	3	1	1	1	2	2	13
		% within Age	15.4%	7.7%	23.1%	7.7%	7.7%	7.7%	15.4%	15.4%	100.0%
		% of Total	15.4%	7.7%	23.1%	7.7%	7.7%	7.7%	15.4%	15.4%	100.0%

Age * Who the project sponsor is - after Crosstabulation

			Who the project sponsor is - after						
			Least important	2	3	5	9	Most important	Total
Age	36-45	Count	0	0	0	0	1	1	2
		% within Age	.0%	.0%	.0%	.0%	50.0%	50.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	8.3%	8.3%	16.7%
	46-55	Count	2	1	1	1	0	2	7
		% within Age	28.6%	14.3%	14.3%	14.3%	.0%	28.6%	100.0%
		% of Total	16.7%	8.3%	8.3%	8.3%	.0%	16.7%	58.3%
	56+	Count	1	0	1	0	1	0	3
		% within Age	33.3%	.0%	33.3%	.0%	33.3%	.0%	100.0%
		% of Total	8.3%	.0%	8.3%	.0%	8.3%	.0%	25.0%
Total		Count	3	1	2	1	2	3	12
		% within Age	25.0%	8.3%	16.7%	8.3%	16.7%	25.0%	100.0%
		% of Total	25.0%	8.3%	16.7%	8.3%	16.7%	25.0%	100.0%

Age * What the financial benefits are - before Crosstabulation

			What the financial benefits are - before							
			Least important	4	5	6	7	8	Most important	Total
Age	36-45	Count	1	0	0	0	1	0	0	2
		% within Age	50.0%	.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	7.7%	.0%	.0%	.0%	7.7%	.0%	.0%	15.4%
	46-55	Count	0	1	1	3	2	1	0	8
		% within Age	.0%	12.5%	12.5%	37.5%	25.0%	12.5%	.0%	100.0%
		% of Total	.0%	7.7%	7.7%	23.1%	15.4%	7.7%	.0%	61.5%
	56+	Count	1	0	0	1	0	0	1	3
		% within Age	33.3%	.0%	.0%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	7.7%	.0%	.0%	7.7%	.0%	.0%	7.7%	23.1%
Total		Count	2	1	1	4	3	1	1	13
		% within Age	15.4%	7.7%	7.7%	30.8%	23.1%	7.7%	7.7%	100.0%
		% of Total	15.4%	7.7%	7.7%	30.8%	23.1%	7.7%	7.7%	100.0%

Age * What the financial benefits are - after Crosstabulation

			What the financial benefits are - after									
			Least important	3	4	5	6	7	8	9	Most important	Total
Age	36-45	Count	1	0	0	0	0	0	1	0	0	2
		% within Age	50.0%	.0%	.0%	.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	8.3%	.0%	.0%	.0%	.0%	.0%	8.3%	.0%	.0%	16.7%
	46-55	Count	0	1	0	2	1	1	0	1	1	7
		% within Age	.0%	14.3%	.0%	28.6%	14.3%	14.3%	.0%	14.3%	14.3%	100.0%
		% of Total	.0%	8.3%	.0%	16.7%	8.3%	8.3%	.0%	8.3%	8.3%	58.3%
	56+	Count	0	0	1	1	1	0	0	0	0	3
		% within Age	.0%	.0%	33.3%	33.3%	33.3%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	8.3%	8.3%	8.3%	.0%	.0%	.0%	.0%	25.0%
Total		Count	1	1	1	3	2	1	1	1	1	12
		% within Age	8.3%	8.3%	8.3%	25.0%	16.7%	8.3%	8.3%	8.3%	8.3%	100.0%
		% of Total	8.3%	8.3%	8.3%	25.0%	16.7%	8.3%	8.3%	8.3%	8.3%	100.0%

Age * What the strategic fit is - before Crosstabulation

			What the strategic fit is - before						
			Least important	5	6	7	8	Most important	Total
Age	36-45	Count	0	0	1	0	1	0	2
		% within Age	.0%	.0%	50.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	.0%	7.1%	.0%	7.1%	.0%	14.3%
	46-55	Count	1	3	1	1	0	2	8
		% within Age	12.5%	37.5%	12.5%	12.5%	.0%	25.0%	100.0%
		% of Total	7.1%	21.4%	7.1%	7.1%	.0%	14.3%	57.1%
	56+	Count	0	0	0	0	4	0	4
		% within Age	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	28.6%	.0%	28.6%
Total		Count	1	3	2	1	5	2	14
		% within Age	7.1%	21.4%	14.3%	7.1%	35.7%	14.3%	100.0%
		% of Total	7.1%	21.4%	14.3%	7.1%	35.7%	14.3%	100.0%

Age * What the strategic fit is - after Crosstabulation

			What the strategic fit is - after					Total
			Least important	4	6	7	Most important	
Age	36-45	Count	0	1	0	0	1	2
		% within Age	.0%	50.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	7.7%	.0%	.0%	7.7%	15.4%
	46-55	Count	1	1	1	1	3	7
		% within Age	14.3%	14.3%	14.3%	14.3%	42.9%	100.0%
		% of Total	7.7%	7.7%	7.7%	7.7%	23.1%	53.8%
	56+	Count	1	0	0	0	3	4
		% within Age	25.0%	.0%	.0%	.0%	75.0%	100.0%
		% of Total	7.7%	.0%	.0%	.0%	23.1%	30.8%
Total		Count	2	2	1	1	7	13
		% within Age	15.4%	15.4%	7.7%	7.7%	53.8%	100.0%
		% of Total	15.4%	15.4%	7.7%	7.7%	53.8%	100.0%

Age * If we had done similar stuff before Crosstabulation

			If we had done similar stuff before								
			Least important	2	3	4	5	7	8	Most important	Total
Age	36-45	Count	0	0	1	0	0	1	0	0	2
		% within Age	.0%	.0%	50.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	7.7%	.0%	.0%	15.4%
	46-55	Count	2	1	0	2	0	2	1	0	8
		% within Age	25.0%	12.5%	.0%	25.0%	.0%	25.0%	12.5%	.0%	100.0%
		% of Total	15.4%	7.7%	.0%	15.4%	.0%	15.4%	7.7%	.0%	61.5%
	56+	Count	0	0	1	0	1	0	0	1	3
		% within Age	.0%	.0%	33.3%	.0%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	7.7%	.0%	.0%	7.7%	23.1%
Total		Count	2	1	2	2	1	3	1	1	13
		% within Age	15.4%	7.7%	15.4%	15.4%	7.7%	23.1%	7.7%	7.7%	100.0%
		% of Total	15.4%	7.7%	15.4%	15.4%	7.7%	23.1%	7.7%	7.7%	100.0%

Age * If we had done similar stuff after Crosstabulation

			If we had done similar stuff after						
			Least important	2	5	7	9	Most important	Total
Age	36-45	Count	0	0	2	0	0	0	2
		% within Age	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	16.7%	.0%	.0%	.0%	16.7%
	46-55	Count	2	2	0	1	2	0	7
		% within Age	28.6%	28.6%	.0%	14.3%	28.6%	.0%	100.0%
		% of Total	16.7%	16.7%	.0%	8.3%	16.7%	.0%	58.3%
	56+	Count	0	1	1	0	0	1	3
		% within Age	.0%	33.3%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	8.3%	8.3%	.0%	.0%	8.3%	25.0%
Total		Count	2	3	3	1	2	1	12
		% within Age	16.7%	25.0%	25.0%	8.3%	16.7%	8.3%	100.0%
		% of Total	16.7%	25.0%	25.0%	8.3%	16.7%	8.3%	100.0%

Age * Capital investment required - before Crosstabulation

			Capital investment required - before							
			Least important	2	3	5	6	8	9	Total
Age	36-45	Count	0	0	0	0	1	1	0	2
		% within Age	.0%	.0%	.0%	.0%	50.0%	50.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.7%	7.7%	.0%	15.4%
	46-55	Count	1	1	4	1	0	1	0	8
		% within Age	12.5%	12.5%	50.0%	12.5%	.0%	12.5%	.0%	100.0%
		% of Total	7.7%	7.7%	30.8%	7.7%	.0%	7.7%	.0%	61.5%
	56+	Count	0	1	0	1	0	0	1	3
		% within Age	.0%	33.3%	.0%	33.3%	.0%	.0%	33.3%	100.0%
		% of Total	.0%	7.7%	.0%	7.7%	.0%	.0%	7.7%	23.1%
Total		Count	1	2	4	2	1	2	1	13
		% within Age	7.7%	15.4%	30.8%	15.4%	7.7%	15.4%	7.7%	100.0%
		% of Total	7.7%	15.4%	30.8%	15.4%	7.7%	15.4%	7.7%	100.0%

Age * Capital investment required - after Crosstabulation

			Capital investment required - after							
			Least important	2	3	4	6	7	8	Total
Age	36-45	Count	0	1	0	0	0	0	1	2
		% within Age	.0%	50.0%	.0%	.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	8.3%	.0%	.0%	.0%	.0%	8.3%	16.7%
	46-55	Count	1	1	0	2	2	0	1	7
		% within Age	14.3%	14.3%	.0%	28.6%	28.6%	.0%	14.3%	100.0%
		% of Total	8.3%	8.3%	.0%	16.7%	16.7%	.0%	8.3%	58.3%
	56+	Count	0	0	1	1	0	1	0	3
		% within Age	.0%	.0%	33.3%	33.3%	.0%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	8.3%	8.3%	.0%	8.3%	.0%	25.0%
Total		Count	1	2	1	3	2	1	2	12
		% within Age	8.3%	16.7%	8.3%	25.0%	16.7%	8.3%	16.7%	100.0%
		% of Total	8.3%	16.7%	8.3%	25.0%	16.7%	8.3%	16.7%	100.0%

Age * Impact on program quality - before Crosstabulation

			Impact on program quality - before						
			Least important	4	6	8	9	Most important	Total
Age	36-45	Count	0	0	0	0	2	0	2
		% within Age	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	14.3%	.0%	14.3%
	46-55	Count	1	1	0	1	1	4	8
		% within Age	12.5%	12.5%	.0%	12.5%	12.5%	50.0%	100.0%
		% of Total	7.1%	7.1%	.0%	7.1%	7.1%	28.6%	57.1%
	56+	Count	0	1	1	0	1	1	4
		% within Age	.0%	25.0%	25.0%	.0%	25.0%	25.0%	100.0%
		% of Total	.0%	7.1%	7.1%	.0%	7.1%	7.1%	28.6%
Total		Count	1	2	1	1	4	5	14
		% within Age	7.1%	14.3%	7.1%	7.1%	28.6%	35.7%	100.0%
		% of Total	7.1%	14.3%	7.1%	7.1%	28.6%	35.7%	100.0%

Age * Impact on program quality - after Crosstabulation

			Impact on program quality - after						
			Least important	6	7	8	9	Most important	Total
Age	36-45	Count	0	1	0	0	1	0	2
		% within Age	.0%	50.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	7.7%	.0%	.0%	7.7%	.0%	15.4%
	46-55	Count	1	0	1	1	4	0	7
		% within Age	14.3%	.0%	14.3%	14.3%	57.1%	.0%	100.0%
		% of Total	7.7%	.0%	7.7%	7.7%	30.8%	.0%	53.8%
	56+	Count	0	1	1	1	0	1	4
		% within Age	.0%	25.0%	25.0%	25.0%	.0%	25.0%	100.0%
		% of Total	.0%	7.7%	7.7%	7.7%	.0%	7.7%	30.8%
Total		Count	1	2	2	2	5	1	13
		% within Age	7.7%	15.4%	15.4%	15.4%	38.5%	7.7%	100.0%
		% of Total	7.7%	15.4%	15.4%	15.4%	38.5%	7.7%	100.0%

Age * Measurable benefits - before Crosstabulation

			Measurable benefits - before								
			Least important	2	3	5	7	8	9	Most important	Total
Age	36-45	Count	0	0	0	0	1	0	0	1	2
		% within Age	.0%	.0%	.0%	.0%	50.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	7.1%	.0%	.0%	7.1%	14.3%
	46-55	Count	1	1	1	1	0	2	2	0	8
		% within Age	12.5%	12.5%	12.5%	12.5%	.0%	25.0%	25.0%	.0%	100.0%
		% of Total	7.1%	7.1%	7.1%	7.1%	.0%	14.3%	14.3%	.0%	57.1%
	56+	Count	1	0	0	0	1	1	0	1	4
		% within Age	25.0%	.0%	.0%	.0%	25.0%	25.0%	.0%	25.0%	100.0%
		% of Total	7.1%	.0%	.0%	.0%	7.1%	7.1%	.0%	7.1%	28.6%
Total		Count	2	1	1	1	2	3	2	2	14
		% within Age	14.3%	7.1%	7.1%	7.1%	14.3%	21.4%	14.3%	14.3%	100.0%
		% of Total	14.3%	7.1%	7.1%	7.1%	14.3%	21.4%	14.3%	14.3%	100.0%

Age * Measurable benefits - after Crosstabulation

			Measurable benefits - after							Total
			3	4	5	7	8	9	Most important	
Age	36-45	Count	0	0	0	1	0	0	1	2
		% within Age	.0%	.0%	.0%	50.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	.0%	.0%	7.7%	.0%	.0%	7.7%	15.4%
	46-55	Count	1	1	1	0	2	1	1	7
		% within Age	14.3%	14.3%	14.3%	.0%	28.6%	14.3%	14.3%	100.0%
		% of Total	7.7%	7.7%	7.7%	.0%	15.4%	7.7%	7.7%	53.8%
	56+	Count	0	0	1	0	0	2	1	4
		% within Age	.0%	.0%	25.0%	.0%	.0%	50.0%	25.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	15.4%	7.7%	30.8%
Total		Count	1	1	2	1	2	3	3	13
		% within Age	7.7%	7.7%	15.4%	7.7%	15.4%	23.1%	23.1%	100.0%
		% of Total	7.7%	7.7%	15.4%	7.7%	15.4%	23.1%	23.1%	100.0%

Age * Customer perspective - before Crosstabulation

			Customer perspective - before							
			2	3	4	7	8	9	Most important	Total
Age	36-45	Count	1	0	0	0	1	0	0	2
		% within Age	50.0%	.0%	.0%	.0%	50.0%	.0%	.0%	100.0%
		% of Total	7.1%	.0%	.0%	.0%	7.1%	.0%	.0%	14.3%
	46-55	Count	2	0	1	1	2	1	1	8
		% within Age	25.0%	.0%	12.5%	12.5%	25.0%	12.5%	12.5%	100.0%
		% of Total	14.3%	.0%	7.1%	7.1%	14.3%	7.1%	7.1%	57.1%
	56+	Count	0	2	0	1	0	0	1	4
		% within Age	.0%	50.0%	.0%	25.0%	.0%	.0%	25.0%	100.0%
		% of Total	.0%	14.3%	.0%	7.1%	.0%	.0%	7.1%	28.6%
Total		Count	3	2	1	2	3	1	2	14
		% within Age	21.4%	14.3%	7.1%	14.3%	21.4%	7.1%	14.3%	100.0%
		% of Total	21.4%	14.3%	7.1%	14.3%	21.4%	7.1%	14.3%	100.0%

Age * Customer perspective - after Crosstabulation

			Customer perspective - after							
			2	3	6	7	8	9	Most important	Total
Age	36-45	Count	0	1	0	0	0	1	0	2
		% within Age	.0%	50.0%	.0%	.0%	.0%	50.0%	.0%	100.0%
		% of Total	.0%	7.7%	.0%	.0%	.0%	7.7%	.0%	15.4%
	46-55	Count	1	0	1	1	3	0	1	7
		% within Age	14.3%	.0%	14.3%	14.3%	42.9%	.0%	14.3%	100.0%
		% of Total	7.7%	.0%	7.7%	7.7%	23.1%	.0%	7.7%	53.8%
	56+	Count	1	0	0	1	1	0	1	4
		% within Age	25.0%	.0%	.0%	25.0%	25.0%	.0%	25.0%	100.0%
		% of Total	7.7%	.0%	.0%	7.7%	7.7%	.0%	7.7%	30.8%
Total		Count	2	1	1	2	4	1	2	13
		% within Age	15.4%	7.7%	7.7%	15.4%	30.8%	7.7%	15.4%	100.0%
		% of Total	15.4%	7.7%	7.7%	15.4%	30.8%	7.7%	15.4%	100.0%

Age * Quality of the project proposal - before Crosstabulation

			Quality of the project proposal - before								
			Least important	2	3	4	5	6	7	9	Total
Age	36-45	Count	0	0	1	0	0	0	0	1	2
		% within Age	.0%	.0%	50.0%	.0%	.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	.0%	7.7%	.0%	.0%	.0%	.0%	7.7%	15.4%
	46-55	Count	1	0	1	0	1	2	1	2	8
		% within Age	12.5%	.0%	12.5%	.0%	12.5%	25.0%	12.5%	25.0%	100.0%
		% of Total	7.7%	.0%	7.7%	.0%	7.7%	15.4%	7.7%	15.4%	61.5%
	56+	Count	0	2	0	1	0	0	0	0	3
		% within Age	.0%	66.7%	.0%	33.3%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	15.4%	.0%	7.7%	.0%	.0%	.0%	.0%	23.1%
Total		Count	1	2	2	1	1	2	1	3	13
		% within Age	7.7%	15.4%	15.4%	7.7%	7.7%	15.4%	7.7%	23.1%	100.0%
		% of Total	7.7%	15.4%	15.4%	7.7%	7.7%	15.4%	7.7%	23.1%	100.0%

Age * Quality of the project proposal - after Crosstabulation

			Quality of the project proposal - after								
			Least important	2	3	4	5	6	7	8	Total
Age	36-45	Count	0	0	0	0	0	0	0	2	2
		% within Age	.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	.0%	16.7%	16.7%
	46-55	Count	1	0	1	1	2	0	1	1	7
		% within Age	14.3%	.0%	14.3%	14.3%	28.6%	.0%	14.3%	14.3%	100.0%
		% of Total	8.3%	.0%	8.3%	8.3%	16.7%	.0%	8.3%	8.3%	58.3%
	56+	Count	0	1	1	0	0	1	0	0	3
		% within Age	.0%	33.3%	33.3%	.0%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	.0%	8.3%	8.3%	.0%	.0%	8.3%	.0%	.0%	25.0%
Total		Count	1	1	2	1	2	1	1	3	12
		% within Age	8.3%	8.3%	16.7%	8.3%	16.7%	8.3%	8.3%	25.0%	100.0%
		% of Total	8.3%	8.3%	16.7%	8.3%	16.7%	8.3%	8.3%	25.0%	100.0%

Age * Project resources required - before Crosstabulation

			Project resources required - before							
			2	4	5	6	7	8	9	Total
Age	36-45	Count	0	1	0	0	0	0	1	2
		% within Age	.0%	50.0%	.0%	.0%	.0%	.0%	50.0%	100.0%
		% of Total	.0%	7.7%	.0%	.0%	.0%	.0%	7.7%	15.4%
	46-55	Count	2	2	0	3	0	1	0	8
		% within Age	25.0%	25.0%	.0%	37.5%	.0%	12.5%	.0%	100.0%
		% of Total	15.4%	15.4%	.0%	23.1%	.0%	7.7%	.0%	61.5%
	56+	Count	0	1	1	0	1	0	0	3
		% within Age	.0%	33.3%	33.3%	.0%	33.3%	.0%	.0%	100.0%
		% of Total	.0%	7.7%	7.7%	.0%	7.7%	.0%	.0%	23.1%
Total		Count	2	4	1	3	1	1	1	13
		% within Age	15.4%	30.8%	7.7%	23.1%	7.7%	7.7%	7.7%	100.0%
		% of Total	15.4%	30.8%	7.7%	23.1%	7.7%	7.7%	7.7%	100.0%

Age * Project resources required - after Crosstabulation

			Project resources required - after								
			Least important	2	3	4	6	7	8	9	Total
Age	36-45	Count	0	0	0	0	0	0	1	1	2
		% within Age	.0%	.0%	.0%	.0%	.0%	.0%	50.0%	50.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	.0%	8.3%	8.3%	16.7%
	46-55	Count	0	2	1	1	1	1	1	0	7
		% within Age	.0%	28.6%	14.3%	14.3%	14.3%	14.3%	14.3%	.0%	100.0%
		% of Total	.0%	16.7%	8.3%	8.3%	8.3%	8.3%	8.3%	.0%	58.3%
	56+	Count	1	0	0	1	0	0	1	0	3
		% within Age	33.3%	.0%	.0%	33.3%	.0%	.0%	33.3%	.0%	100.0%
		% of Total	8.3%	.0%	.0%	8.3%	.0%	.0%	8.3%	.0%	25.0%
Total		Count	1	2	1	2	1	1	3	1	12
		% within Age	8.3%	16.7%	8.3%	16.7%	8.3%	8.3%	25.0%	8.3%	100.0%
		% of Total	8.3%	16.7%	8.3%	16.7%	8.3%	8.3%	25.0%	8.3%	100.0%

Age * Before we began, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			Before we began, I knew how to define a strategic gap and plan a project to fix it								Total
			Strongly disagree	2	3	4	5	6	7	Strongly agree	
Age	26-35	Count	0	0	0	0	1	0	0	0	1
		% within Age	.0%	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.9%	.0%	.0%	.0%	5.9%
	36-45	Count	0	1	0	0	0	0	1	1	3
		% within Age	.0%	33.3%	.0%	.0%	.0%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	5.9%	.0%	.0%	.0%	.0%	5.9%	5.9%	17.6%
	46-55	Count	1	1	1	1	0	2	2	0	8
		% within Age	12.5%	12.5%	12.5%	12.5%	.0%	25.0%	25.0%	.0%	100.0%
		% of Total	5.9%	5.9%	5.9%	5.9%	.0%	11.8%	11.8%	.0%	47.1%
	56+	Count	1	1	0	0	1	0	1	1	5
		% within Age	20.0%	20.0%	.0%	.0%	20.0%	.0%	20.0%	20.0%	100.0%
		% of Total	5.9%	5.9%	.0%	.0%	5.9%	.0%	5.9%	5.9%	29.4%
Total		Count	2	3	1	1	2	2	4	2	17
		% within Age	11.8%	17.6%	5.9%	5.9%	11.8%	11.8%	23.5%	11.8%	100.0%
		% of Total	11.8%	17.6%	5.9%	5.9%	11.8%	11.8%	23.5%	11.8%	100.0%

Age * After we finish, I knew how to define a strategic gap and plan a project to fix it Crosstabulation

			After we finish, I knew how to define a strategic gap and plan a project to fix it							Total
			4	5	6	7	8	9	Strongly agree	
Age	26-35	Count	0	0	0	1	0	0	0	1
		% within Age	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	.0%	.0%	.0%	5.9%
	36-45	Count	0	1	0	0	2	0	0	3
		% within Age	.0%	33.3%	.0%	.0%	66.7%	.0%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	.0%	11.8%	.0%	.0%	17.6%
	46-55	Count	1	0	0	2	1	4	0	8
		% within Age	12.5%	.0%	.0%	25.0%	12.5%	50.0%	.0%	100.0%
		% of Total	5.9%	.0%	.0%	11.8%	5.9%	23.5%	.0%	47.1%
	56+	Count	0	0	1	0	2	1	1	5
		% within Age	.0%	.0%	20.0%	.0%	40.0%	20.0%	20.0%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	11.8%	5.9%	5.9%	29.4%
Total		Count	1	1	1	3	5	5	1	17
		% within Age	5.9%	5.9%	5.9%	17.6%	29.4%	29.4%	5.9%	100.0%
		% of Total	5.9%	5.9%	5.9%	17.6%	29.4%	29.4%	5.9%	100.0%

Age * Learning this process will help me be more strategic in my role within PLASP Crosstabulation

			Learning this process will help me be more strategic in my role within PLASP			
			8	9	Strongly agree	Total
Age	26-35	Count	1	0	0	1
		% within Age	100.0%	.0%	.0%	100.0%
		% of Total	5.9%	.0%	.0%	5.9%
	36-45	Count	2	1	0	3
		% within Age	66.7%	33.3%	.0%	100.0%
		% of Total	11.8%	5.9%	.0%	17.6%
	46-55	Count	2	3	3	8
		% within Age	25.0%	37.5%	37.5%	100.0%
		% of Total	11.8%	17.6%	17.6%	47.1%
	56+	Count	0	3	2	5
		% within Age	.0%	60.0%	40.0%	100.0%
		% of Total	.0%	17.6%	11.8%	29.4%
Total		Count	5	7	5	17
		% within Age	29.4%	41.2%	29.4%	100.0%
		% of Total	29.4%	41.2%	29.4%	100.0%

Age * Initial training workshop on the methodology Crosstabulation

			Initial training workshop on the methodology						
			3	5	7	8	9	Most impact	Total
Age	26-35	Count	0	0	0	1	0	0	1
		% within Age	.0%	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	.0%	.0%	5.9%
	36-45	Count	0	1	0	0	2	0	3
		% within Age	.0%	33.3%	.0%	.0%	66.7%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	.0%	11.8%	.0%	17.6%
	46-55	Count	1	0	2	2	1	2	8
		% within Age	12.5%	.0%	25.0%	25.0%	12.5%	25.0%	100.0%
		% of Total	5.9%	.0%	11.8%	11.8%	5.9%	11.8%	47.1%
	56+	Count	0	0	1	1	3	0	5
		% within Age	.0%	.0%	20.0%	20.0%	60.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	5.9%	17.6%	.0%	29.4%
Total		Count	1	1	3	4	6	2	17
		% within Age	5.9%	5.9%	17.6%	23.5%	35.3%	11.8%	100.0%
		% of Total	5.9%	5.9%	17.6%	23.5%	35.3%	11.8%	100.0%

Age * Clear executive support to implement this Crosstabulation

			Clear executive support to implement this					
			5	7	8	9	Most impact	Total
Age	26-35	Count	0	0	1	0	0	1
		% within Age	.0%	.0%	100.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	.0%	5.9%
	36-45	Count	0	1	0	2	0	3
		% within Age	.0%	33.3%	.0%	66.7%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	11.8%	.0%	17.6%
	46-55	Count	1	0	0	2	5	8
		% within Age	12.5%	.0%	.0%	25.0%	62.5%	100.0%
		% of Total	5.9%	.0%	.0%	11.8%	29.4%	47.1%
	56+	Count	0	1	0	3	1	5
		% within Age	.0%	20.0%	.0%	60.0%	20.0%	100.0%
		% of Total	.0%	5.9%	.0%	17.6%	5.9%	29.4%
Total		Count	1	2	1	7	6	17
		% within Age	5.9%	11.8%	5.9%	41.2%	35.3%	100.0%
		% of Total	5.9%	11.8%	5.9%	41.2%	35.3%	100.0%

Age * Involvment of staff on the project team Crosstabulation

			Involvment of staff on the project team				
			4	8	9	Most impact	Total
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	0	3	0	3
		% within Age	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	17.6%	.0%	17.6%
	46-55	Count	1	0	2	5	8
		% within Age	12.5%	.0%	25.0%	62.5%	100.0%
		% of Total	5.9%	.0%	11.8%	29.4%	47.1%
	56+	Count	0	2	0	3	5
		% within Age	.0%	40.0%	.0%	60.0%	100.0%
		% of Total	.0%	11.8%	.0%	17.6%	29.4%
Total		Count	1	2	5	9	17
		% within Age	5.9%	11.8%	29.4%	52.9%	100.0%
		% of Total	5.9%	11.8%	29.4%	52.9%	100.0%

Age * The ability to state & measure strategy clearly Crosstabulation

			The ability to state & measure strategy clearly				
			7	8	9	Most impact	Total
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	1	2	0	3
		% within Age	.0%	33.3%	66.7%	.0%	100.0%
		% of Total	.0%	5.9%	11.8%	.0%	17.6%
	46-55	Count	2	1	2	3	8
		% within Age	25.0%	12.5%	25.0%	37.5%	100.0%
		% of Total	11.8%	5.9%	11.8%	17.6%	47.1%
	56+	Count	1	0	1	3	5
		% within Age	20.0%	.0%	20.0%	60.0%	100.0%
		% of Total	5.9%	.0%	5.9%	17.6%	29.4%
Total		Count	3	2	5	7	17
		% within Age	17.6%	11.8%	29.4%	41.2%	100.0%
		% of Total	17.6%	11.8%	29.4%	41.2%	100.0%

Age * The fact the method is used in the private sector Crosstabulation

			The fact the method is used in the private sector							
			Least impact	2	3	5	6	8	9	Total
Age	26-35	Count	0	0	0	1	0	0	0	1
		% within Age	.0%	.0%	.0%	100.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	.0%	.0%	.0%	5.9%
	36-45	Count	0	0	1	0	0	1	1	3
		% within Age	.0%	.0%	33.3%	.0%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	.0%	5.9%	5.9%	17.6%
	46-55	Count	1	2	2	1	2	0	0	8
		% within Age	12.5%	25.0%	25.0%	12.5%	25.0%	.0%	.0%	100.0%
		% of Total	5.9%	11.8%	11.8%	5.9%	11.8%	.0%	.0%	47.1%
	56+	Count	0	0	2	0	2	1	0	5
		% within Age	.0%	.0%	40.0%	.0%	40.0%	20.0%	.0%	100.0%
		% of Total	.0%	.0%	11.8%	.0%	11.8%	5.9%	.0%	29.4%
Total		Count	1	2	5	2	4	2	1	17
		% within Age	5.9%	11.8%	29.4%	11.8%	23.5%	11.8%	5.9%	100.0%
		% of Total	5.9%	11.8%	29.4%	11.8%	23.5%	11.8%	5.9%	100.0%

Age * Reading about others' successes & failures Crosstabulation

			Reading about others' successes & failures							Total
			3	4	5	6	7	8	Most impact	
Age	26-35	Count	0	0	1	0	0	0	0	1
		% within Age	.0%	.0%	100.0%	.0%	.0%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	.0%	.0%	.0%	.0%	5.9%
	36-45	Count	0	0	0	0	2	1	0	3
		% within Age	.0%	.0%	.0%	.0%	66.7%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	11.8%	5.9%	.0%	17.6%
	46-55	Count	1	2	1	2	1	0	1	8
		% within Age	12.5%	25.0%	12.5%	25.0%	12.5%	.0%	12.5%	100.0%
		% of Total	5.9%	11.8%	5.9%	11.8%	5.9%	.0%	5.9%	47.1%
	56+	Count	0	1	1	1	0	2	0	5
		% within Age	.0%	20.0%	20.0%	20.0%	.0%	40.0%	.0%	100.0%
		% of Total	.0%	5.9%	5.9%	5.9%	.0%	11.8%	.0%	29.4%
Total		Count	1	3	3	3	3	3	1	17
		% within Age	5.9%	17.6%	17.6%	17.6%	17.6%	17.6%	5.9%	100.0%
		% of Total	5.9%	17.6%	17.6%	17.6%	17.6%	17.6%	5.9%	100.0%

Age * Using outside facilitators to manage meetings Crosstabulation

			Using outside facilitators to manage meetings					Total
			6	7	8	9	Most impact	
Age	26-35	Count	0	0	0	0	1	1
		% within Age	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	1	0	1	0	1	3
		% within Age	33.3%	.0%	33.3%	.0%	33.3%	100.0%
		% of Total	5.9%	.0%	5.9%	.0%	5.9%	17.6%
	46-55	Count	0	1	0	1	6	8
		% within Age	.0%	12.5%	.0%	12.5%	75.0%	100.0%
		% of Total	.0%	5.9%	.0%	5.9%	35.3%	47.1%
	56+	Count	0	0	0	2	3	5
		% within Age	.0%	.0%	.0%	40.0%	60.0%	100.0%
		% of Total	.0%	.0%	.0%	11.8%	17.6%	29.4%
Total		Count	1	1	1	3	11	17
		% within Age	5.9%	5.9%	5.9%	17.6%	64.7%	100.0%
		% of Total	5.9%	5.9%	5.9%	17.6%	64.7%	100.0%

Age * Having consultants available to support us Crosstabulation

			Having consultants available to support us				Total
			7	8	9	Most impact	
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	1	2	0	3
		% within Age	.0%	33.3%	66.7%	.0%	100.0%
		% of Total	.0%	5.9%	11.8%	.0%	17.6%
	46-55	Count	1	0	1	6	8
		% within Age	12.5%	.0%	12.5%	75.0%	100.0%
		% of Total	5.9%	.0%	5.9%	35.3%	47.1%
	56+	Count	0	1	1	3	5
		% within Age	.0%	20.0%	20.0%	60.0%	100.0%
		% of Total	.0%	5.9%	5.9%	17.6%	29.4%
Total		Count	1	2	4	10	17
		% within Age	5.9%	11.8%	23.5%	58.8%	100.0%
		% of Total	5.9%	11.8%	23.5%	58.8%	100.0%

Age * My time commitment required to learn methodology Crosstabulation

			My time commitment required to learn methodology						Total
			3	5	7	8	9	Most impact	
Age	26-35	Count	0	0	0	0	1	0	1
		% within Age	.0%	.0%	.0%	.0%	100.0%	.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	5.9%	.0%	5.9%
	36-45	Count	0	0	0	2	1	0	3
		% within Age	.0%	.0%	.0%	66.7%	33.3%	.0%	100.0%
		% of Total	.0%	.0%	.0%	11.8%	5.9%	.0%	17.6%
	46-55	Count	0	1	0	1	3	3	8
		% within Age	.0%	12.5%	.0%	12.5%	37.5%	37.5%	100.0%
		% of Total	.0%	5.9%	.0%	5.9%	17.6%	17.6%	47.1%
	56+	Count	1	0	1	0	3	0	5
		% within Age	20.0%	.0%	20.0%	.0%	60.0%	.0%	100.0%
		% of Total	5.9%	.0%	5.9%	.0%	17.6%	.0%	29.4%
Total		Count	1	1	1	3	8	3	17
		% within Age	5.9%	5.9%	5.9%	17.6%	47.1%	17.6%	100.0%
		% of Total	5.9%	5.9%	5.9%	17.6%	47.1%	17.6%	100.0%

Age * The time required before results are achieved Crosstabulation

			The time required before results are achieved						
			5	6	7	8	9	Most impact	Total
Age	26-35	Count	0	0	0	0	0	1	1
		% within Age	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	0	1	2	0	0	3
		% within Age	.0%	.0%	33.3%	66.7%	.0%	.0%	100.0%
		% of Total	.0%	.0%	5.9%	11.8%	.0%	.0%	17.6%
	46-55	Count	1	1	1	1	3	1	8
		% within Age	12.5%	12.5%	12.5%	12.5%	37.5%	12.5%	100.0%
		% of Total	5.9%	5.9%	5.9%	5.9%	17.6%	5.9%	47.1%
	56+	Count	0	1	0	1	3	0	5
		% within Age	.0%	20.0%	.0%	20.0%	60.0%	.0%	100.0%
		% of Total	.0%	5.9%	.0%	5.9%	17.6%	.0%	29.4%
Total		Count	1	2	2	4	6	2	17
		% within Age	5.9%	11.8%	11.8%	23.5%	35.3%	11.8%	100.0%
		% of Total	5.9%	11.8%	11.8%	23.5%	35.3%	11.8%	100.0%

Age * I think the process is sound Crosstabulation

			I think the process is sound				
			7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	1	0	1	1	3
		% within Age	33.3%	.0%	33.3%	33.3%	100.0%
		% of Total	5.9%	.0%	5.9%	5.9%	17.6%
	46-55	Count	0	2	0	6	8
		% within Age	.0%	25.0%	.0%	75.0%	100.0%
		% of Total	.0%	11.8%	.0%	35.3%	47.1%
	56+	Count	0	1	3	1	5
		% within Age	.0%	20.0%	60.0%	20.0%	100.0%
		% of Total	.0%	5.9%	17.6%	5.9%	29.4%
Total		Count	1	3	4	9	17
		% within Age	5.9%	17.6%	23.5%	52.9%	100.0%
		% of Total	5.9%	17.6%	23.5%	52.9%	100.0%

Age * I think the process is relevant to us Crosstabulation

			I think the process is relevant to us			
			8	9	Strongly agree	Total
Age	26-35	Count	0	0	1	1
		% within Age	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	5.9%	5.9%
	36-45	Count	1	1	1	3
		% within Age	33.3%	33.3%	33.3%	100.0%
		% of Total	5.9%	5.9%	5.9%	17.6%
	46-55	Count	1	1	6	8
		% within Age	12.5%	12.5%	75.0%	100.0%
		% of Total	5.9%	5.9%	35.3%	47.1%
	56+	Count	0	3	2	5
		% within Age	.0%	60.0%	40.0%	100.0%
		% of Total	.0%	17.6%	11.8%	29.4%
Total		Count	2	5	10	17
		% within Age	11.8%	29.4%	58.8%	100.0%
		% of Total	11.8%	29.4%	58.8%	100.0%

Age * I think the process will generate results for us Crosstabulation

			I think the process will generate results for us				
			7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	1	1
		% within Age	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	1	0	2	3
		% within Age	.0%	33.3%	.0%	66.7%	100.0%
		% of Total	.0%	5.9%	.0%	11.8%	17.6%
	46-55	Count	1	0	2	5	8
		% within Age	12.5%	.0%	25.0%	62.5%	100.0%
		% of Total	5.9%	.0%	11.8%	29.4%	47.1%
	56+	Count	1	0	0	4	5
		% within Age	20.0%	.0%	.0%	80.0%	100.0%
		% of Total	5.9%	.0%	.0%	23.5%	29.4%
Total		Count	2	1	2	12	17
		% within Age	11.8%	5.9%	11.8%	70.6%	100.0%
		% of Total	11.8%	5.9%	11.8%	70.6%	100.0%

Age * I think the process will be accepted by others Crosstabulation

			I think the process will be accepted by others						
			5	6	7	8	9	Strongly agree	Total
Age	26-35	Count	0	0	0	0	0	1	1
		% within Age	.0%	.0%	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	.0%	.0%	5.9%	5.9%
	36-45	Count	0	1	0	0	1	1	3
		% within Age	.0%	33.3%	.0%	.0%	33.3%	33.3%	100.0%
		% of Total	.0%	5.9%	.0%	.0%	5.9%	5.9%	17.6%
	46-55	Count	1	4	2	0	0	1	8
		% within Age	12.5%	50.0%	25.0%	.0%	.0%	12.5%	100.0%
		% of Total	5.9%	23.5%	11.8%	.0%	.0%	5.9%	47.1%
	56+	Count	0	1	2	2	0	0	5
		% within Age	.0%	20.0%	40.0%	40.0%	.0%	.0%	100.0%
		% of Total	.0%	5.9%	11.8%	11.8%	.0%	.0%	29.4%
Total		Count	1	6	4	2	1	3	17
		% within Age	5.9%	35.3%	23.5%	11.8%	5.9%	17.6%	100.0%
		% of Total	5.9%	35.3%	23.5%	11.8%	5.9%	17.6%	100.0%

Age * Have you previously worked with the Balanced Scorecard? Crosstabulation

			Have you previously worked with the Balanced Scorecard?	
			no	Total
Age	26-35	Count	1	1
		% within Age	100.0%	100.0%
		% of Total	7.1%	7.1%
	36-45	Count	3	3
		% within Age	100.0%	100.0%
		% of Total	21.4%	21.4%
	46-55	Count	5	5
		% within Age	100.0%	100.0%
		% of Total	35.7%	35.7%
	56+	Count	5	5
		% within Age	100.0%	100.0%
		% of Total	35.7%	35.7%
Total		Count	14	14
		% within Age	100.0%	100.0%
		% of Total	100.0%	100.0%

APPENDIX T: T-TEST FOR PLASP BEFORE/AFTER RESULTS

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Before participating on this team, my understanding of PLASP's strategy was clear - After participating on this team, my understanding of PLASP's strategy is clearer	-1.900	2.222	.497	-2.940	-.860	-3.824	19	.001
Pair 2	Before we began, I thought PLASP's internal processes were efficient - After we finish, I think PLASP's internal processes will be more efficient	-2.350	1.843	.412	-3.213	-1.487	-5.702	19	.000
Pair 3	Before we began, I thought PLASP's internal processes were effective - After we finish, I think PLASP's internal processes will be more effective	-2.200	1.361	.304	-2.837	-1.563	-7.228	19	.000

Pair 4	Before we began, PLASP had too many projects underway at the same time - After we finish, PLASP will have too many projects underway at the same time	1.650	2.852	.638	.315	2.985	2.587	19	.018
Pair 5	Before we began, I had difficulty determining which projects were more strategic - After we finish, I will have difficulty determining which projects are more strategic	2.900	2.989	.668	1.501	4.299	4.338	19	.000
Pair 6	Before we began, I knew how to define a strategic gap and plan a project to fix it - After we finish, I knew how to define a strategic gap and plan a project to fix it	-2.450	2.064	.462	-3.416	-1.484	-5.308	19	.000

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Who the project sponsor is - before - Who the project sponsor is - after	.857	4.294	1.148	-1.622	3.337	.747	13	.468
Pair 2	What the financial benefits are - before - What the financial benefits are - after	-.286	2.367	.633	-1.653	1.081	-.452	13	.659
Pair 3	What the strategic fit is - before - What the strategic fit is - after	-.133	4.324	1.116	-2.528	2.261	-.119	14	.907
Pair 4	If we had done similar stuff before - If we had done similar stuff after	.357	3.455	.923	-1.638	2.352	.387	13	.705
Pair 5	Capital investment required - before - Capital investment required - after	.143	2.713	.725	-1.424	1.710	.197	13	.847

Pair 6	Impact on program quality - before - Impact on program quality - after	.267	1.751	.452	-.703	1.236	.590	14	.565
Pair 7	Measurable benefits - before - Measurable benefits - after	-1.000	4.440	1.146	-3.459	1.459	-.872	14	.398
Pair 8	Customer perspective - before - Customer perspective - after	-1.000	2.699	.697	-2.495	.495	-1.435	14	.173
Pair 9	Quality of the project proposal - before - Quality of the project proposal - after	.214	2.694	.720	-1.341	1.770	.298	13	.771
Pair 10	Project resources required - before - Project resources required - after	-.571	3.857	1.031	-2.799	1.656	-.554	13	.589

PLASP's Strategy Map
~ Interpretation Guide ~
February – March 2006

General Principles

- PLASP's Strategy Map is essentially a **roadmap for PLASP's future**. If you were going on a driving trip, you would want to know where you are going and how to get there. That is what the Strategy Map does for PLASP. Remember the quote we used? "If you don't know where you're going, you may wind up someplace else"? By having a solid roadmap, we can all move in the same direction with consistency and clarity.
- As with the Balanced Scorecard, our Strategy Map was **built with PLASP people for PLASP people**. Over a very intensive period of months, a team of 20 people worked hard at crafting every single word on our map. These twenty represented our 560 staff. That is why each individual was selected so as to speak up with their valuable insights and comments. In this way, we hoped to ensure that when we rolled out this information with everyone, it would make sense and be accepted.
- To build the Strategy Map from the "ground up", we first had to determine the labels for the five **perspectives** (as they are called) that comprise our key themes, or strategies.
- **Learning and Growth** plus **Internal Process** create the foundation for the other strategies. In this case, PLASP's map matches that of many organizations that do this kind of work.
- When it comes to **Technology**, we differ. Often, Technology is embedded within the Internal Process perspective. For PLASP, we felt that Technology is a key driver toward our future of eventually becoming a world class early learning and child care provider. Therefore, it stands on its own as a key set of strategies.
- These "bottom" three perspectives of Learning and Growth, Internal Process and Technology are called **enablers**. That is because they enable (or support) the "top" perspectives of Financial Resources plus Families and Partners.
- Everything **inter-connects** on a Strategy Map. All strategies (the circles we call "bubbles") are in a **cause and effect relationship** with one another. There are a number of arrows connecting the "bubbles" at each level of the Strategy Map. This is by design. Where you see an arrow (always pointing upward because the map is built "bottoms up"), this means he two strategies depend on one another. For example, "Attract, develop, retain life long learners who care" feeds right into "Recognize staff who achieve measurable results". If we want to attract and retain life-long learners, we need to recognize them in some way!
- On PLASP's Strategy Map, the perspective called **Financial Resources** is next. On a typical corporation's map, Finances would likely be placed at the top – suggesting it is a number one strategy for organizational success. Although at PLASP, we believe in being good caretakers of the financial resources at our disposal and in operating as a well-managed successful business, we also believe that that our relationships with **Families and Partners** are core to everything we do. As a result, we placed Families and Partners as the top perspective on our Strategy Map. Within other organizations, what we call Families and Partners would likely be named Customers. We simply believe Families and Partners is a more representative term for our relationships with our "customers".
- Finally, we had to identify what we are actually aiming for as an organization… In other words, where is our "roadmap for the future" taking PLASP? After considerable discussion, we determined the answer to be: **A World Class Early Learning and Child**

Care Provider. While every single aspect of our Strategy Map was debated at length, this one probably caused the most discussion. We had to get right where we are going! (for more information, see the explanation under "bubble" number 11)

- Before we dive into the detail of what each "bubble" means, let's explain for a moment **how the Strategy Map and Balanced Scorecard work together**. First, PLASP developed its Strategy Map, so we would know where we are going as an organization. Then, we worked on the Balanced Scorecard. How these two key tools link is as follows: **The Balanced Scorecard aims to translate the Strategy into a simple, focused set of measures that are clear to everyone in the organization, across all "boundaries" and at all levels.** The Balanced Scorecard therefore expresses PLASP's high-level Strategy Map in operational terms that can be understood and measured by all.
- You will find on the following pages a detailed explanation of each Strategy Map "bubble", answering the key question that sits beneath each perspective (e.g., under Learning and Growth, the key question is: "To execute our strategy, how must we learn and grow?")
- In this sense, you will notice that the Strategy Map and Balanced Scorecard contain the very same five perspectives. It's just that in the case of the Strategy Map, they form the basis of our "roadmap for the future". In terms of the Balanced Scorecard, these five perspectives form a **balanced view of measurement**. Whereas many corporations measure only Finances, the Balanced Scorecard says that all five perspectives count. They work together to give a total picture of PLASP's overall health.

PLASP's Strategy Map
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Details

LEARNING AND GROWTH

"To execute our strategy, how must we learn and grow?"

Establish "Model Site" Framework (1):

- You know how when you walk into a great PLASP program, you can "see it, hear it, smell it, taste it and feel it"? The "it" is the essence of PLASP's "Magic". Capturing that greatness is what the Model Site is all about.
- Given what we have said about striving to be the "best of the best", the Model Site Team's work has consisted of documenting in clear, understandable, descriptive terms the essence of what makes a wonderful PLASP program.
- All Program staff were involved in this initiative when they shared in spring 2005 their views about the "best practices" in their programs. That is what the Model Site Team has attempted to bring together, so that everyone has access to all the great things we are doing.
- "The" Model Site is a collection of our "best of the best" from all PLASP school age locations.
- Understandably, concerns were also expressed about the Model Site Framework leading to a "cookie cutter" approach. This will not happen. After all, are you not a unique individual? Therefore, how could any one of us ever hope to duplicate your particular brand of personal "magic"? It's impossible!
- More accurately, the Model Site is about blending your uniqueness with a sharing of your colleagues' "best practices" so that we all keep growing in a spirit of continuous improvement – just one part of moving from Great to Greater.
- Lastly, several staff suggested that PLASP provide opportunities to visit others' programs (especially the chance to view set-up, crafts and gym activities within similar programs, such as 1-staff). While certain logistics will be involved, every effort will be made to enable this to take place.

Attract, Develop, Retain Life Long Learners Who Care (2):

- The Model Site Framework is one strategy by which we need to learn and grow. Another is the ability to attract, develop and retain life long learners who care.
- PLASP sees challenges in achieving this, and chooses to be ahead of the curve. We must continually challenge ourselves to make ours an inspiring workplace that will attract and retain top talent. We, at PLASP, like to stay on the leading edge!
- What we mean by "life long learners" is those who have a personal commitment to continuous learning and growth. PLASP is looking to attract staff who are open to new/additional training and development opportunities – because they recognize the value of learning throughout life and how that just makes them even more skilled.
- As to the "care", we know that you care deeply. What brings you to work each day? Staff answer it is the children.

INTERNAL PROCESS

"To add value, at what processes must we excel?"

Offer Developmentally Appropriate Programs Exceeding Requirements (3):

- Moving up from the Learning and Growth perspective to Internal Process, one of the first strategies that is critical is offering developmentally appropriate programs exceeding requirements.
- Much of this is what we already do now, as part of our mission to provide high quality child care that is accessible, affordable and well-managed.

Establish Well Managed Systems Responsive to Partner Needs (4):

- Another vital part of having effective Internal Processes is to establish well managed systems responsive to partner needs.
- "Systems" in this case should not so much be interpreted as technology systems, but rather the processes that will allow us to respond to partner needs. What are some examples of processes that need to be well-managed? They include registration, cancellation, attendance-taking, health and safety procedures, and many more.
- As to what we mean by "partners", this includes the families and the broader community surrounding PLASP (i.e., school staff, Board, relationships with those who do business with us, etc.). It is essential that PLASP be responsive to all partners' needs.

Recognize Staff Who Achieve Measurable Results (5):

- To connect the arrows on PLASP's Strategy Map, establishing a Model Site Framework will help us offer developmentally appropriate programs exceeding requirements and help us continue to develop well-managed systems responsive to partner needs. In the same vein, if PLASP is seeking to attract, develop and retain life long learners who care, we need to recognize staff who achieve measurable results. See how "bubbles" 2 and 5 link up, for example? You cannot hope to attract and keep high-quality staff if you are not prepared to recognize them in some way.
- As mentioned, implementing Balanced Scorecard measurement often requires that organizations revisit key policies, practices and procedures to make sure that everything supports where we are going as an organization. This "bubble" is a perfect example of a project that is necessitated.
- PLASP's performance appraisal system will be changed to reflect balanced organizational performance measurement. Human Resources is embarking on this project. A performance appraisal is not the only way to recognize staff. There are *many* ways to acknowledge people – such as a simple thank-you note, taking staff out to lunch, tokens of appreciation, support with the parents, and the list goes on. We will need to continue to challenge ourselves to find ways to recognize staff who achieve measurable results.

TECHNOLOGY

"To improve results, how can technology help us?"

Expand Effective Technology Solutions (6):

- PLASP deliberately decided to have the Technology perspective stand alone in its own set of key strategies. Technology is seen as a critical driver of PLASP's future growth. Therefore, expand effective technology solutions shows up in the first Technology "bubble".
- Current systems, processes and procedures are being reviewed to ensure they are the most effective they can be. The Information Technology department is continuing to

look at systems, processes and procedures to see where technology can provide the greatest benefit.

Optimize Website Usage (7):

- When the Strategy Mapping and Balanced Scorecard Team first discussed optimizing website usage, we were initially thinking about how to expand the public's use of PLASP's external website.
- In addition, we have introduced information to all staff about how you can access PLASP's website "internally" so as to look up job postings, retrieve Activity Planners, etc. Optimizing website usage can be very useful for all staff. As such, efforts are underway to put on the website even more of the forms staff currently use – increasing the value gained by using PLASP's website. We can undertake these initiatives right now.

FINANCIAL RESOURCES

"If we succeed, how will we look to our stakeholders?"

Optimize Enrolment and Financial Results (8):

- We already aim to optimize enrolment and financial results. How often over the years have you heard us talk about maximizing enrolment?
- [Note about the term, "stakeholders"…this is a commonly-used business term which simply means those who have an interest (stake) in PLASP's success. The term Families and Partners is generally used to describe our "stakeholders"; they mean the same thing.

Implement Effective Resource Management (9):

- For PLASP, the other half of the perspective on Financial Resources consists of being good caretakers of the revenue that comes to us – through fees and other sources. You will notice that the Balanced Scorecard contains a measure related to number of vendors donating (those who provide goods and services to PLASP), for instance. While the measure on the BSC resides under Families and Partners (because it reflects our solid relationships), it also pertains to being effective resource managers. If we are able to "stretch" our dollars or in-kind donations, then that makes us good stewards of our finances.
- In this way, our perspective on Financial Resources is also very balanced. We are not only looking at optimizing enrolment and our financial results but also at how we effectively manage those resources. PLASP is financially sound – balancing the financial sheet between resources coming in and expenditures going out.

FAMILIES AND PARTNERS

Build and Nurture Positive, Reciprocal Relationships (10):

"To achieve our vision, how must we treat our clients?"

- Now we come to the heart of the matter… Building relationships is fundamental to everything we do at PLASP. What kind of relationships are we talking about? Positive, reciprocal (two-way) relationships, of course! As to "build and nurture", those verbs were carefully chosen to express that we actively create our relationships with Families and Partners (build). Once built, we actively nurture them (like a garden you need to tend and grow) by bringing our best to everyone with whom we interact each and every day.

And if we are successful at living our 10 Key Strategies, we will get to where we are going on our "roadmap for the future"…

A World Class Early Learning and Child Care Provider (11):

The term "World Class" comes from an extensive body of business thought led by authors like Jim Collins in Built to Last: Successful Habits of Visionary Companies. Similar terms include best-in-class. As to how the phrase, "World Class Early Learning and Child Care Provider", came to be on our Strategy Map, our cross-functional team had to ask ourselves: How "World Class" are we aiming to be? What do we mean by "World Class"? Is that the right term for us? After much reflection, we believed "World Class" is a vision toward which we are inspired. Already today, PLASP is a leader in the child care field, a winner of a number of recognized-excellence awards. Most importantly, we are really talking about a mindset that underpins our Strategy Map and Balanced Scorecard. It is an attitude of vision and inspiration. At PLASP, we aim to be the "best of the best" – from Great to Greater!

PLASP's Balanced Scorecard Measures
~ Interpretation Guide ~
February – March 2006

Families/Partners

Parent Satisfaction:

- **Definition:** Annual Parent Survey Results
- **Current Baseline:** 99.7%
- **Target:** 100%

Child Satisfaction:

- **Definition:** Annual Child Survey Results
- **Current Baseline:** to be derived by undertaking a Child Satisfaction Survey
- **Target:** 100%

Sites With Adequate Space to Meet Demand:

- **Definition:** Space is provided by the school to PLASP, for expansion, as required to meet parent demand.
- **Current Baseline:**
- **Target:** 100%

Vendors Donating:

- **Definition of Donations:** Annually receive donations from vendors/partners with whom PLASP does business in excess of $2,000 per year.
- **Definition of Partners:** Partners are individuals, organizations and others who recognize that PLASP provides a necessary community service and may consider supporting PLASP financially or with in-kind donations. PLASP would not typically purchase goods or services from partners. Examples of partners include: former PLASP staff, charitable foundations, and service clubs.
- **Definition of Vendors:** Vendors are companies and individuals which provide goods and/or services to PLASP. Examples of vendors include: food suppliers, craft suppliers, trainers etc.
- **Current Baseline:** 32 Vendors currently donate
- **Target:** 50% of all Vendors with whom we do business in excess of $2,000 a year

PLASP's Balanced Scorecard Measures
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Internal Process

PLASP's Scored Assessment Model:

- **Definition:** Self-assessment checklist summarizing the best practice statements within each success factor (as per Model Site)
- **Current Baseline:** None
- **Target:** 100% of Sites to achieve 90% on Scored Assessment Model

Major Special Events:

- **Definition:** A Special Event is a new or unique idea which is introduced as a variation in the program. Major Special Events are usually theme-based, involve planning with the children, and result in a series of activities that culminate in one large activity (e.g., Musical Production, Talent Show, Hawaiian Day, Circus Day). The objective of Major Special Events is to vary the type of activities offered in the program, to enhance the quality of the program and the children's enjoyment of the program, as well as to encourage the retention of children in the program.
- **Current Baseline:** The current expectation is 1 Major Special Event per month in each of the Before School, Lunch and After School programs.
- **Target:** 1 Major Special Event per month, in each program, which is communicated to parents through the posted activity planner, posters/notices in the program, and/or information flyers/invitations sent home to the parents
- Major Special Events are indicated on the monthly program activity planners which are sent into the office at the end of each month. The events are documented monthly, and a monthly report by school, by program, is produced. Parent Satisfaction for Major Special Events is rated by parents in the Annual Parent Satisfaction Survey.

Enrichment Activities (2005/2006):

- **Definition of Enrichment Activity:** An Enrichment event takes place when an outside resource person is contracted with to visit a program, bring all the necessary supplies, and does a learning activity with the children (and possibly with the parents as well) that is completely different than the regular program activities (e.g., Drum Circle, Travellin' Critters, Kid Proof Canada, Arts Jam, Mad Science). The objective of Enrichment events is to enhance program quality and the children's enjoyment of the program, and to encourage the retention of the children in the program.
- **Current Baseline:** In 2004-2005, programs in 81 different school locations experienced Enrichment Events
- **Target**: 3 Enrichment Events will take place in each of a minimum of 100 sites in 2006-07
- To measure this, a quarterly report will be produced and reviewed to ensure that PLASP is on track to meet the annual target

WSIB Reportable Staff Accidents:

- **Definition:** All staff accidents/illnesses that happen in the program/centre and that are reportable to WSIB (Workplace Safety & Insurance Board)
- **Current Baseline:** 29 accidents in 2004-2005
- **Target:** Reduce year over year to a target of 0

PLASP's Balanced Scorecard Measures
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Technology

Anticipated Benefits Achieved Through Technological Solutions:

- **Definition:** Percentage of anticipated benefits from IT projects or technology investments, actually achieved – as measured by cost savings, process improvements, etc.
- **Current Baseline:** Not established
- **Target:** Set 3-5 year cost/benefit cycle

User Satisfaction – "Trouble Tickets":

- **Definition of Trouble Ticket:** When an internal or external customer reports an IT problem that prevents them from doing their work; activated by a phone call and assigned a number.
- **Current Baseline:** Needs to be derived through a user satisfaction survey
- **Target:** 95% user satisfaction of tickets closed – as measured by Level of Communication, Timeline for Resolution, Completeness of Solution

Web Site Usage:

- **Definition:** Number of user views on the top 25 pages of PLASP's web site to extend access to information by parents, partners and staff.
- **Current Baseline:** Established starting February '05
- **Target:** 10% increase compared to corresponding month of previous year

PLASP's Balanced Scorecard Measures
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Learning & Growth

Training Completion for New Staff:

- **Definition:** All School age Program employees complete their required training, as scheduled.
- **Current Baseline:** 100% completion
- **Target:** 100% within 12 months

Training Events Attended:

- **Definition:** All staff who have completed their required training will attend a minimum of one optional training session per school year. Training sessions can be provided by an outside facilitator and will be counted as long as the content is job related.
- **Current Baseline:** None
- **Target:** At least 1 event per year for all staff

Attendance at Required Meetings:

- **Definition:** Annually, Program and Centre staff are required to attend Reorganization Day, the Annual Parent Meeting, 3 Regional Meetings, and a monthly Area Meeting
- **Current Baseline:** TBA
- **Target:** 100%

PLASP's Balanced Scorecard Measures
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Financial Resources

Individual Site Viability:

- **Definition:** The breakeven enrolment is determined using budget program expenses and administration expenses and the number of children enrolled to cover these expenses. Breakeven or better is calculated individually for each Before School, Lunch and After School using their actual full time enrolments and staffing by school by program.
- **Current Baseline:** Locations that breakeven = 55% of school-age sites (includes admin. expense)
- **Target:** 70%
- Look at including Child Care Centres in this metric

Enrolment to Staffed Capacity:

- **Definition:** The number of children enrolled in a program/centre, compared to the maximum number of children allowed to be enrolled as a result of the number of staff in the ratio.
- **Current Baseline:** 84% Enrolment to Staffed Capacity
- **Target:** 90% Enrolment to Staffed Capacity

Enrolment to School Population:

- **Definition:** The number of children enrolled in a program, compared to the number of children in the school in Grades 1 to 5.
- **Current Baseline:** February 2003: Before school 4.1%; Lunch 3.4%; After School 5.9%
- **Target:** To be determined

Average Program Vacancy Lag Time:

- **Definition:** Program Vacancy Lag Time is the amount of time, in weeks, that it takes to fill the vacancy created by a program's cancellation.
- **Current Baseline:** The 2005-2006 baseline for the After School full time program measured for 13 weeks, from mid-September to mid-December 2005, was 6.6 weeks.
- **Target:** 3 weeks on average, organization-wide. To achieve this, the registration, cancellation and waiting list policies, processes, systems, procedures and current practices will need to be reviewed, revised, clarified, documented and implemented, with the appropriate staff training and monitoring.
- We will measure this through a quarterly report of all locations, identifying those locations where the targeted lag time was not met.

Time to Hire:

- **Definition of Time to Hire:** Time of approved vacancy to time of offer to hire
- **Definition of Vacancy:** An approved position on the books (budgeted and approved – not a position that may exist based on fluctuating program enrolment)
- **Current Baseline:** To be established
- **Target:** Reduction by 10%

Absenteeism & Relief Staff Days Used:

- **Definition:** Tracking of the days absent from the program/centre and the placement of relief staff to cover the position.
- **Current Baselines:** The Child Care Centre staff average is 7 paid days absent, and the School Age staff average is 3 paid days absent, based on statistics kept for the 2004-2005 school year. The Current Baseline for unpaid days absent is to be determined.
- **Target:** Reduction by 10%

Annual Staff Turnover:

- **Definition:** The number of employees who leave PLASP employment in a given year.
- **Current Baseline:** 10.5% overall based on the 2004/2005 school year (63 employees)
- **Target:** Reduction by 10%

APPENDIX W: GLOSSARY OF TERMS

BSC. The most common short form used for a firm's Balanced Scorecard. For this thesis, this refers to a balanced scorecard and its methodology as developed and published by Drs. Norton & Kaplan (1996, 1998).

CAPM. Capital asset pricing model - allows firms to incorporate the costs of capital and assets and their allocated consumption into its assessment of total enterprise profitability.

Dimension. The BSC has four dimensions or "perspectives" from which the firm's strategy must be considered and developed. Measures are populated into these dimensions to create a "picture" of the firm's strategy. These normally include financial/shareholder, markets/customers, internal process and learning & growth/people. Many firms take some liberties with the definitions of these dimensions and what is or is not included in each quadrant of the traditional balanced scorecard.

EBIT. Earnings before taxes and interest.

EBITDA. Earnings before taxes, interest, depreciation and amortization. Both of these are standard measures of overall firm profitability.

ICT. Information and telecommunications technology, a common short form used to refer to technology associated with the IT and telecommunications infrastructure of firms. Sometimes includes the word "field" to refer to those who work with ICT infrastructure professionally.

IRR. The internal rate of return of a project is calculated by comparing the periodic consumption of cash (and related cost of resources consumed during the project) versus its potential to generate returns in that same period. May also be used in a modified form (MIRR) that includes an adjustment for a base cost of capital for the firm.

IS/IT. Normal short-form names for the disciplines of Information System and Information Technology and collectively seen by most academics as a sub-set of broader studies in **ICT** (Information and Communications Technology). Used extensively as a term of academics writing in this field.

KM. Knowledge Management, a common practitioners' short form.

LFM. The logical framework method (Baccarini, 1999) often cited in the literature as a defining contribution to thinking on the alignment and execution of individual project strategy to enterprise strategy.

Measure. A defined, constructed measure linked to a strategic outcome that is used to populate either a BSC or a PPM project scoring model.

Metric. The target associated with a strategic measure; may also be referred to as the "target" and is the performance level to which the firm aspires as a result of the execution of its strategy.

NPV. Net present value – a standard financial calculation that allows cumulative future costs and expenses to be assessed for present value using a pre-determined discount rate, normally equal to the cost of capital for the firm.

PM. Project Management, a common practitioners' short form.

PMBOK. The "Project Management Body of Knowledge" considered by the PMI to be a guide to the professional body of knowledge required of a certified project management professional (PMP).

PMI. The Project Management Institute (www.pmi.org), the world's largest certifying body for professional project managers and the publisher of the PMBOK.

PMO. A project management office which is usually a "centre for excellence" or centralized function serving project management needs organization-wide and staffed by full-time resources dedicated to project management tasks.

PMP. A professional designation, the "Project Management Professional", earned upon completing the requirements specified by the Project Management Institute, Philadelphia, PA.

PPB. Project pay-back – a standard financial calculation that determines over what period of time (days, months, years) it takes for the benefits of a project to payback all of its costs.

PPM. An established methodology in the field of professional project management designed to enable organizations to manage multiple projects simultaneously as a portfolio rather than as single projects running concurrently.

ROA. Return on assets – a common financial measure that determines how much profit is generated by a firm's asset base. Commonly used in certain industries such as natural resources or manufacturing as an overall measure of financial efficiency.

ROE. Return on equity – a common financial measure that determines how much profit is generated by a firm's equity base. Commonly used in certain industries such as financial services as an overall measure of financial efficiency.

ROI. Return on investment – a standard financial calculation that demonstrates as a percentage the return of profit over costs of a particular project, initiative or investment.

Scoring Model. A technique of ranking projects according to a strict measurement regime that is pre-determined and applied equally in order to sort out the relative or absolute effects of a portfolio of proposed or current projects.

Strategy Map. The Balanced Scorecard methodology defines this tool as mapping the strategic "cause & effect" relationships important to the firm and from which the strategic measures and metrics are determined. This is very well defined in the most recent Kaplan & Norton book specifically written about strategy maps (2003).